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**SUPERSONIC DYNAMIC STABILITY DERIVATIVES  
OF A MODIFIED 089B SHUTTLE ORBITER**

**Delma C. Freeman,  
Richmond P. Boyden  
and  
E. E. Davenport**

**October 1974**

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## TABLE OF CONTENTS

	<u>Page</u>
INDEX OF FIGURES	ii
SUMMARY	1
INTRODUCTION	2
SYMBOLS	2
CONFIGURATION INVESTIGATED	6
TEST CONDITIONS	7
TEST FACILITY DESCRIPTION	7
DATA REDUCTION	8
PRESENTATION OF RESULTS	8
REFERENCES	8
TABLES	
I.    TEST CONDITIONS	7
II.   DATA SET/RUN NUMBER COLLATION SUMMARY	9
III.  COMPONENT DIMENSIONAL DATA	10
FIGURES	
MODEL	14
DATA	17
APPENDIX	
TABULATED SOURCE DATA	

# INDEX OF FIGURES

<u>FIGURE</u>	<u>MODEL FIGURE TITLES</u>	<u>PAGE</u>
1	AXIS SYSTEMS	14
2	SSV ORBITER WITH DIMENSIONS NORMALIZED WITH RESPECT TO BODY LENGTH OF 3277.4 CM. (1290.3 IN.)	15
3	PHOTOGRAPH OF MODEL INSTALLED IN NASA UNITARY PLAN WIND TUNNEL	16

<u>FIGURE</u>	<u>DATA FIGURE TITLES</u>	<u>PLOT SCHEDULE</u>	<u>PAGE</u>
4	EFFECT OF C.G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH	(A)	1-12
5	EFFECT OF C.G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW	(B)	13-22
6	EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH	(A)	23-34
7	EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW	(B)	35-44
8	EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL	(C)	45-56
9	EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW	(B)	57-66
10	EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL	(C)	67-78
11	EFFECT OF ELEVONS AND BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH	(A)	79-90
12	EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH	(A)	91-102



## INDEX OF FIGURES (CONCLUDED)

### PLOT SCHEDULE:

- (A) CNQ, CNA, CLMQ, CLMA VS ALPHA
- (B) CYNR, CYNBC, CBLR, CBLBC VS ALPHA
- (C) CBLP, CBLBS, CYNP, CYNBS VS ALPHA

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SUPERSONIC DYNAMIC STABILITY  
DERIVATIVES OF A MODIFIED O89B SHUTTLE ORBITER  
(LA14)

by

Delma C. Freeman, Jr., Richmond P. Boyden and E. E. Davenport

SUMMARY

An experimental test program has been conducted to measure the supersonic dynamic stability derivatives of a modified O89B shuttle orbiter configuration. The tests were conducted in the Langley Unitary Plan Wind Tunnel utilizing forced oscillation equipment. Rotary derivatives were measured about all three axes with both the in-phase and out-of-phase derivatives reported herein. The tests were conducted at Mach numbers of 1.6, 1.9, 2.36, 2.86, 3.96 and 4.63 for angles of attack up to  $30^\circ$ . The data were measured at the model resonant frequency with pitch and yaw amplitudes of  $1^\circ$  and roll amplitudes of  $2.5^\circ$ .

## INTRODUCTION

One of the current major national goals is the development of the Space Shuttle. As part of this effort a program has been initiated at the Langley Research Center to experimentally measure the dynamic damping derivatives of the shuttle orbiter for all flight phases from entry to landing. These experimentally measured values will be utilized in computations to assess the importance of dynamic damping derivatives on overall vehicle dynamics. Subsonic-transonic results are presented in reference 1 and hypersonic results in reference 2.

As part of this study supersonic forced oscillation tests of a 0.0165-scale model of a modified 089B shuttle orbiter have been made in the Langley Unitary Plan Wind Tunnel (UPWT). These tests were made for several configurations over a Mach number range from 1.6 to 4.63 measuring the pitch, roll, and yaw damping. The normal force due to pitch rate, cross-derivative yawing moment due to roll rate, and rolling moment due to yaw rate were also measured. Data plots and tables were prepared by Chrysler Corporation under NASA contract. For this investigation, designated UPWT 1046/1049 (LA14), the tunnel occupancy time was 170 hours.

## SYMBOLS

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$b$	BREF	reference span, meters
$C_{\ell}$	CBL	rolling-moment coefficient, $\frac{\text{rolling moment}}{q_{\infty} S b}$
$C_{\ell p}$	-	$\frac{\partial C_{\ell}}{\partial \left( \frac{pb}{2V} \right)}$ , per radian
$C_{\ell \dot{p}}$	-	$\frac{\partial C_{\ell}}{\partial \left( \frac{pb^2}{4V^2} \right)}$ , per radian
$C_{\ell p} + C_{\ell \dot{\beta}} \sin \alpha$	CBLP	damping-in-roll parameter, per radian
$C_{\ell r}$	-	$\frac{\partial C_{\ell}}{\partial \left( \frac{rb}{2V} \right)}$ , per radian
$C_{\ell \dot{r}}$	-	$\frac{\partial C_{\ell}}{\partial \left( \frac{rb^2}{4V^2} \right)}$ , per radian
$C_{\ell r} - C_{\ell \dot{\alpha}} \cos \alpha$	CBLR	rolling moment due to yaw rate parameter, per radian

# SYMBOLS (Continued)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$C_{\ell_\beta}$	-	$\frac{\partial C_{\ell}}{\partial \beta}$ , per radian
$C_{\ell_\beta}$	-	$\frac{\partial C_{\ell}}{\partial \left(\frac{\beta b}{2V}\right)}$ , per radian
$C_{\ell_\beta} \sin \alpha - k^2 C_{\ell \dot{p}}$	CBLBS	rolling moment due to roll displacement parameter, per radian
$C_{\ell_\beta} \cos \alpha + k^2 C_{\ell \dot{r}}$	CBLBC	effective dihedral parameter, per radian
$C_m$	CLM	pitching-moment coefficient, $\frac{\text{pitching moment}}{q_\infty S \bar{c}}$
$C_{mq}$	-	$\frac{\partial C_m}{\partial \left(\frac{q \bar{c}}{2V}\right)}$ , per radian
$C_{m \dot{q}}$	-	$\frac{\partial C_m}{\partial \left(\frac{\dot{q} \bar{c}^2}{4V^2}\right)}$ , per radian
$C_{mq} + C_{m \dot{\alpha}}$	CLMQ	damping-in-pitch parameter, per radian
$C_{m_\alpha}$	-	$\frac{\partial C_m}{\partial \alpha}$ , per radian
$C_{m \dot{\alpha}}$	-	$\frac{\partial C_m}{\partial \left(\frac{\dot{\alpha} \bar{c}}{2V}\right)}$ , per radian
$C_{m_\alpha} - k^2 C_{m \dot{q}}$	CLMA	oscillatory longitudinal stability parameter, per radian
$C_N$	CN	normal force coefficient, $\frac{\text{normal force}}{q_\infty S}$

# SYMBOLS (Continued)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$C_{N\dot{q}}$	-	$\frac{\partial C_N}{\partial \left(\frac{q\dot{c}}{2V}\right)}$ , per radian
$C_{N\dot{q}}$	-	$\frac{\partial C_N}{\partial \left(\frac{q\dot{c}^2}{4V^2}\right)}$ , per radian
$C_{N\dot{q}} + C_{N\dot{\alpha}}$	CNQ	normal force due to pitch rate parameter, per radian
$C_{N\alpha}$	-	$\frac{\partial C_N}{\partial \alpha}$ , per radian
$C_{N\dot{\alpha}}$	-	$\frac{\partial C_N}{\partial \left(\frac{\dot{\alpha}c}{2V}\right)}$ , per radian
$C_{N\alpha} - k^2 C_{N\dot{q}}$	CNA	normal force due to pitch displacement parameter, per radian
$C_n$	CYN	yawing-moment coefficient, $\frac{\text{yawing moment}}{q_\infty S b}$
$C_{n\dot{p}}$	-	$\frac{\partial C_n}{\partial \left(\frac{p\dot{b}}{2V}\right)}$ , per radian
$C_{n\dot{p}}$	-	$\frac{\partial C_n}{\partial \left(\frac{p\dot{b}^2}{4V^2}\right)}$ , per radian
$C_{n\dot{p}} + C_{n\dot{\beta}} \sin \alpha$	CYNP	yawing moment due to roll rate parameter, per radian
$C_{nr}$	-	$\frac{\partial C_n}{\partial \left(\frac{rb}{2V}\right)}$ , per radian

# SYMBOLS (Continued)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$C_{n_r}$	-	$\frac{\partial C_n}{\partial \left(\frac{rb^2}{4V^2}\right)}$ , per radian
$C_{n_r} - C_{n_\beta} \cos \alpha$	CYNR	damping-in-yaw parameter, per radian
$C_{n_\beta}$	-	$\frac{\partial C_n}{\partial \beta}$ , per radian
$C_{n_\beta}$	-	$\frac{\partial C_n}{\partial \left(\frac{\beta b}{2V}\right)}$ , per radian
$C_{n_\beta} \cos \alpha + k^2 C_{n_r}$	CYNBS	oscillatory directional-stability parameter, per radian
$C_{n_\beta} \sin \alpha - k^2 C_{n_p}$	CYNBS	yawing moment due to roll displacement parameter, per radian
$\bar{c}$	LREF	reference chord, meters
c.g.	CG-LOC	reference center of gravity location position
f	-	frequency of oscillation, Hertz
k	-	reduced frequency parameter, $\frac{\omega \bar{c}}{2V}$ in pitch; $\frac{\omega b}{2V}$ in roll and yaw, radians
M	MACH	free-stream Mach number
P	-	angular velocity of model about X axis, radians/second
q	-	angular velocity of model about Y axis, radians/second
$q_\infty$	Q(KPA)	free-stream dynamic pressure, k Pa, (psf)
R	RN/L	Reynolds number, millions/meter, millions/foot, millions based on body length

# SYMBOLS (Concluded)

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
$r$	-	angular velocity of model about Z axis, radians/second
$S$	SREF	reference area, meters <sup>2</sup>
$V$	-	free-stream velocity, meters/second
$\alpha$	ALPHA	angle of attack, radians or degrees
$\beta$	BETA	angle of sideslip, radians or degrees
$\omega$	-	angular velocity, $2\pi f$ , radians/second
$\delta_a$	AILRON	total aileron control surface deflection angle, degrees
$\delta_{bf}$	BDFLAP	body flap surface deflection angle, positive trailing edge down, degrees
$\delta_e$	ELEVTR	elevator surface deflection angle, positive trailing edge down, degrees
$\delta_r$	RUDDER	rudder surface deflection angle, positive deflection trailing edge to the left, degrees
$\delta_{rf}$	RUDFLR	rudder flare deflection angle, included angle between split rudder used to decrease speed, degrees

Note: A dot over a quantity indicates a first derivative with respect to time.

## CONFIGURATION INVESTIGATED

A 0.0165 scale model of a blend of Rockwell International shuttle configurations was tested. The model consisted of a 089B orbiter configuration with a 139B configuration nose forward of fuselage station 500. A sketch and photograph of the model are shown in figures 2 and 3, respectively. Data were measured at two moment reference point locations, 65 percent and 67 percent of the body length, (position 1.0 and 2.0, respectively). Variations of body flap and orbital maneuvering system (OMS) installation were also investigated. The data tabulation sheets are presented in Table II and the model component dimensional data are presented in Table III.



## TEST CONDITIONS

Tunnel conditions during the tests are summarized in table 1. The Langley forced oscillation apparatus (see reference 3) was used with the model oscillating at resonant frequency. Amplitudes of  $1^\circ$  were used during the pitch and yaw tests and  $2.5^\circ$  for the roll tests. Both the in-phase and the out-of-phase derivatives are presented for the primary derivatives as well as the cross-derivatives of yawing moment due to rolling velocity and rolling moment due to yaw velocity. All data presented are average values of three data samples at each angle of attack.

TABLE I. TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER X $10^6$ (BASED ON MODEL LENGTH)	DYNAMIC PRESSURE	
		k Pa	PSF
1.60	3.55	23.03	480
1.90	3.55	22.89	478
2.36	4.43	26.86	560
2.86	4.43	23.70	495
3.96	4.43	17.62	368
4.63	4.43	13.93	291

## TEST FACILITY DESCRIPTION

The Langley Research Center Unitary Plan Wind Tunnel (see reference 4) is an air-medium, continuous-flow facility consisting of two test sections. Asymmetrical, sliding-block type throats control Mach number, and models can be supported from stings mounted to the side-wall strut systems. Each test section is 1.219 meters by 1.219 meters (4 feet by 4 feet). Section Number 1 operates at Mach numbers of 1.47 to 2.86 and Section Number 2 operates at Mach numbers of 2.29 to 4.63. Reynolds numbers and tunnel pressures are variation with limitations prescribed by tunnel capabilities and model load designs. Normal operating total temperature is  $65^\circ\text{C}$  ( $150^\circ\text{F}$ ).

## DATA REDUCTION

Forces and moments were reduced about the body axes system to coefficient form utilizing the following model reference values:

b	= BREF = reference wing span	= 0.39256 meter	(15.455 in.)
$\bar{c}$	= LREF = reference MAC	= 0.1990 meter	( 7.834 in.)
S	= SREF = reference wing area	= 0.0680 m <sup>2</sup>	(0.7323 ft <sup>2</sup> )

Moment coefficients are referenced to two theoretical center of gravity locations, which are: 1) 65% and 2) 67% of the body length. These dimensions are:

$x_{cg1}$	longitudinal length, nose to forward moment reference center	0.3513 meter	(13.830 in.)
$x_{cg2}$	longitudinal length, nose to aft moment reference center	0.3621 meter	(14.256 in.)
$z_{cg}$	vertical distance, water plane 0 to moment reference center	0.0106 meter	(0.419 in.)

## PRESENTATION OF RESULTS

The forced oscillation test results are presented in figures 4 through 12. The effect of c.g. position on the pitch damping and the normal force due to pitch rate are presented in figure 4. These results show that the model exhibited positive damping at all test conditions except at Mach numbers of 3.96 and 4.63 where there were significant nonlinearities and some undamping at angles of attack between 8 and 18 degrees for both c.g. positions. The effect of c.g. position on the yaw damping is presented in figure 5. These results show that the model had positive damping for the entire  $\alpha$  and Mach range tested for both c.g. positions. The rolling moment due to yaw rate is also presented in this figure. The effect of OMS installation on the roll damping and the yawing moment due to roll rate are presented in figure 8. These data show that the model generally exhibited positive damping for the  $\alpha$  and Mach range tested.

The vertical tail contribution to the yaw and roll damping can be seen in figures 9 and 10 and the effect of configuration variables such as elevon and body flap deflection and body flap removal, are presented in figures 11 and 12 respectively.

## REFERENCES

1. Boyden, R. P. and Freeman, Delma C.: Subsonic and Transonic Dynamic Stability Derivatives of a Modified 089B Shuttle Orbiter, TMX-72631.
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3. Bielat, Ralph P. and Wiley, Harleth G.: Dynamic Longitudinal and Directional Stability Derivatives for a 45° Sweptback-Wing Airplane Model at Transonic Speeds, TM X-39, August 1959.
4. Schaefer, William T. Jr.: Characteristics of Major Active Wind Tunnels At the Langley Research Center, TMX-1130, July 1965.

TABLE II.

TEST : LA14, UPWT 1046/1049				DATA SET/RUN NUMBER COLLATION SUMMARY												DATE : 31 SEPTEMBER 73					
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS ( OR ALTERNATE INDEPENDENT VARIABLE )							TEST RUN NUMBERS					
		$\alpha$	$\beta$	$\delta e$	$\delta r f$	$\delta b f$	C.G.		1.6	1.9	2.36	2.86	3.96	4.63							
RPGP01	BMV	A	0	0	0	40	-	1	4	-	-	910	911	912	913						
P03	BWVM	A	0	0	0	40	-	1	6	603	604	906	907	908	909						
P05	BWVMF	A	0	0	0	40	0	1	6	601	602	901	902	903	904						
P06	BWVMF	A	0	0	0	40	0	2	6	606	607	918	919	920	921						
P07	BWVMF	A	0	5	40	13	2	2	5	-	608	914	915	916	917						
RPGY01	BWV	A	0	0	0	40	-	1	5	-	613	934	935	936	937						
Y02	BW M	A	0	0	0	-	-	1	5	-	612	932	933	930	931						
Y03	BWVM	A	0	0	0	40	-	1	5	-	611	926	927	928	929						
Y04	BWVM	A	0	0	0	40	-	2	5	-	610	922	923	924	925						
RPGR01	BWV	A	0	0	0	40	-	1	5	619	620	618	-	946	947						
R02	BW M	A	0	0	0	-	-	1	6	616	617	942	943	944	945						
R03	BWVM	A	0	0	0	40	-	1	6	614	615	940	941	938	939						
"P" DATA	CLMQ	CLMA	CNQ	CNA	Q (KPA)	BETA	BETA							MACH	ALPHA	6					
"Y" DATA	CYNR	CYNBC	CBLR	CBLBC	Q (KPA)	BETA	BETA							MACH	ALPHA	6					
"R" DATA	CBLP	CBLBS	CYNP	CYNBS	Q (KPA)	BETA	BETA							MACH	ALPHA	6					
TYPE OF DATA		$\alpha(A) = -2^\circ$				$\Delta\alpha = 2^\circ \rightarrow 24^\circ$		COEFFICIENT SCHEDULES		C.G.		IDVAR (1)		IDVAR (2)		NOV					
$\alpha$ OR $\beta$										1 = FORWARD = 65% Body Length											
SCHEDULES										2 = AFT											

TABLE III. - COMPONENT DIMENSIONAL DATA

## COMPONENT- BODY - B

GENERAL DESCRIPTION- 0898-1398(MODIFIED NOSE).NOSE SECTION FROM FULL-SCALE STATION 238.0 TO STATION 500 FROM NAR DRAWING VL70-0001398, REMAINING BODY AFT OF STATION 500 FROM NAR VL70-000093.

MODEL SCALE- 0.0165

DRAWING NUMBER- VL70-000093, VL70-0001398,

TEST IDENTIFICATION- LA14

	FULL SCALE METRIC		FULL SCALE ENGLISH		MODEL SCALE METRIC		MODEL SCALE ENGLISH	
LENGTH	3277.4	CM.	1290.3	IN.	54.077	CM.	21.290	IN.
MAX. WIDTH	673.1	CM.	265.0	IN.	11.106	CM.	4.372	IN.
MAX. DEPTH	629.9	CM.	248.0	IN.	10.394	CM.	4.092	IN.
FINESSNESS RATIO	4.869		4.869		4.869		4.869	
MAX CROSS-SECTIONAL AREA	42.4011	SO.M.	456.4000	SO.FT.	115.4370	SO.CM.	17.8927	SO.IN.

FOOTNOTE-GENERAL-MODEL SCALE VALUES ARE DERIVED FROM FULL SCALE VALUES  
UNLESS NOTED OTHERWISE.

## COMPONENT- ELEVON

GENERAL DESCRIPTION- CONFIGURATION PER LINES VL70-000093, DATA FOR  
(1) OF (2) SIDES.

MODEL SCALE- 0.0165

DRAWING NUMBER- VL70-000093

TEST IDENTIFICATION- LA14

	FULL SCALE METRIC		FULL SCALE ENGLISH		MODEL SCALE METRIC		MODEL SCALE ENGLISH	
AREA	19.0932	SO.M.	205.5170	SO.FT.	51.9813	SO.CM.	8.0571	SO.IN.
EQUIVALENT SPAN	897.5	CM.	353.34	IN.	14.81	CM.	5.83	IN.
INBOARD EQUIVALENT CHORD	291.5	CM.	114.78	IN.	4.81	CM.	1.89	IN.
OUTBOARD EQUIVALENT CHORD	139.7	CM.	55.00	IN.	2.31	CM.	.91	IN.
RATIO MOVABLE SURFACE CHORD/ TOTAL SURFACE CHORD								
AT INBOARD EQUIVALENT CHORD	.208		.208		.208		.208	
AT OUTBOARD EQUIVALENT CHORD	.400		.400		.400		.400	
SWEEP-BACK ANGLES								
LEADING EDGE	.00	DEG.	.00	DEG.	.00	DEG.	.00	DEG.
TAILING EDGE	-10.02	DEG.	-10.02	DEG.	-10.02	DEG.	-10.02	DEG.
HINGELINE	.00	DEG.	.00	DEG.	.00	DEG.	.00	DEG.
AREA MOMENT NORMAL TO HINGELINE	43.8367	CU.M.	1548.0700	CU.FT.	196.9200	CU.CM.	12.0167	CU.IN.

FOOTNOTE- GENERAL-MODEL SCALE VALUES ARE DERIVED FROM FULL SCALE VALUES  
UNLESS NOTED OTHERWISE.

TABLE III. - COMPONENT DIMENSIONAL DATA

## COMPONENT- WING - W

GENERAL DESCRIPTION- ORBITER CONFIGURATION PER LINES VL70-000093, (DIHEDRAL IS DEFINED AT THE LOWER SURFACE OF THE WING AT THE 75.33 PERCENT ELEMENT LINE PROJECTED INTO A PLANE PERPENDICULAR TO THE FUSELAGE REFERENCE LINE).

MODEL SCALE- 0.0165

DRAWING NUMBER- VL70-000093

TEST IDENTIFICATION- LA14

	FULL SCALE METRIC		FULL SCALE ENGLISH		MODEL SCALE METRIC		MODEL SCALE ENGLISH	
TOTAL DATA								
PLANFORM AREA	249.9102	SQ.M.	2690.0000	SQ.FT.	680.3804	SQ.CM.	105.4588	SQ.IN.
EQUIVALENT SPAN	2379.172	CM.	936.680	IN.	39.256	CM.	15.455	IN.
ASPECT RATIO	2.265		2.265		2.265		2.265	
RATE OF TAPER	1.177		1.177		1.177		1.177	
TAPER RATIO	.200		.200		.200		.200	
DIHEDRAL ANGLE	3.500	DEG.	3.500	DEG.	3.500	DEG.	3.500	DEG.
INCIDENCE ANGLE	3.000	DEG.	3.000	DEG.	3.000	DEG.	3.000	DEG.
AERODYNAMIC TWIST	3.000	DEG.	3.000	DEG.	3.000	DEG.	3.000	DEG.
SWEEP-BACK ANGLES								
LEADING EDGE	45.000	DEG.	45.000	DEG.	45.000	DEG.	45.000	DEG.
TRAILING EDGE	-10.240	DEG.	-10.240	DEG.	-10.240	DEG.	-10.240	DEG.
0.25 ELEMENT LINE	35.209	DEG.	35.209	DEG.	35.209	DEG.	35.209	DEG.
CHORDS								
ROOT (WING STATION 0.0)	1750.67	CM.	689.24	IN.	28.89	CM.	11.37	IN.
TIP (EQUIVALENT)	350.14	CM.	137.85	IN.	5.78	CM.	2.27	IN.
MAC	1206.02	CM.	474.81	IN.	19.90	CM.	7.83	IN.
FUS. STA. OF 0.25 MAC	2887.71	CM.	1136.89	IN.	47.65	CM.	18.76	IN.
W.P. OF 0.25 MAC	759.97	CM.	299.20	IN.	12.54	CM.	4.94	IN.
B.L. OF 0.25 MAC	462.61	CM.	182.13	IN.	7.63	CM.	3.01	IN.
EXPOSED DATA								
AREA	162.7937	SQ.M.	1752.2900	SQ.FT.	443.2059	SQ.CM.	68.6968	SQ.IN.
EQUIVALENT SPAN	1830.53	CM.	720.68	IN.	30.20	CM.	11.89	IN.
ASPECT RATIO	2.058		2.058		2.058		2.058	
TAPER RATIO	.2451		.2451		.2451		.2451	
CHORDS								
ROOT	1428.50	CM.	562.40	IN.	23.57	CM.	9.28	IN.
TIP	350.14	CM.	137.85	IN.	5.78	CM.	2.27	IN.
MAC	998.30	CM.	393.03	IN.	16.47	CM.	6.48	IN.
FUS. STA. OF 0.25 MAC	3010.69	CM.	1185.31	IN.	49.68	CM.	19.56	IN.
W.P. OF 0.25 MAC	762.51	CM.	300.20	IN.	12.58	CM.	4.95	IN.
B.L. OF 0.25 MAC	365.15	CM.	143.76	IN.	6.02	CM.	2.37	IN.

FOOTNOTE- GENERAL- MODEL SCALE VALUES ARE DERIVED FROM FULL SCALE VALUES UNLESS NOTED OTHERWISE.

TABLE III. - COMPONENT DIMENSIONAL DATA

COMPONENT- VERTICAL TAIL - V  
 GENERAL DESCRIPTION- CENTERLINE VERTICAL TAIL DOUBLE WEDGE AIRFOIL  
 WITH ROUNDED LEADING EDGE.  
 MODEL SCALE- 0.0165  
 DRAWING NUMBER- VL70-000095  
 TEST IDENTIFICATION- LA14

	FULL SCALE METRIC		FULL SCALE ENGLISH		MODEL SCALE METRIC		MODEL SCALE ENGLISH	
THEORETICAL AREA	38.3923	SQ.M.	413.2500	SQ.FT.	104.5231	SQ.CM.	16.2011	SQ.IN.
EQUIVALENT SPAN	801.93	CM.	315.72	IN.	13.23	CM.	5.21	IN.
INBOARD EQUIVALENT CHORD	681.99	CM.	268.50	IN.	11.25	CM.	4.43	IN.
OUTBOARD EQUIVALENT CHORD	275.51	CM.	108.47	IN.	4.55	CM.	1.79	IN.
SWEEP-BACK ANGLES								
LEADING EDGE	45.00	DEG.	45.00	DEG.	45.00	DEG.	45.00	DEG.
TAILING EDGE	26.25	DEG.	26.249	DEG.	26.25	DEG.	26.25	DEG.

FOOTNOTE-GENERAL-MODEL SCALE VALUES ARE DERIVED FROM FULL SCALE VALUES  
 UNLESS NOTED OTHERWISE.

COMPONENT- RUDDER  
 GENERAL DESCRIPTION- CONFIGURATION PER LINES VL70-000095.  
 MODEL SCALE- 0.0165  
 DRAWING NUMBER- VL70-000095  
 TEST IDENTIFICATION- LA14

	FULL SCALE METRIC		FULL SCALE ENGLISH		MODEL SCALE METRIC		MODEL SCALE ENGLISH	
AREA	9.883	SQ.M.	106.380	SQ.FT.	.0027	SQ.M.	.0290	SQ.FT.
EQUIVALENT SPAN	510.54	CM.	201.00	IN.	8.42	CM.	3.32	IN.
INBOARD EQUIVALENT CHORD	232.63	CM.	91.585	IN.	3.84	CM.	1.51	IN.
OUTBOARD EQUIVALENT CHORD	129.12	CM.	50.833	IN.	2.13	CM.	.84	IN.
RATIO MOVABLE SURFACE CHORD/ TOTAL SURFACE CHORD								
AT INBOARD EQUIVALENT CHORD	.400		.400		.400		.400	
AT OUTBOARD EQUIVALENT CHORD	.400		.400		.400		.400	
SWEEP-BACK ANGLES								
LEADING EDGE	34.83	DEG.	34.83	DEG.	34.83	DEG.	34.83	DEG.
TRAILING EDGE	26.25	DEG.	26.25	DEG.	26.25	DEG.	26.25	DEG.
HINGELINE	34.83	DEG.	34.83	DEG.	34.83	DEG.	34.83	DEG.
AREA MOMENT								
NORMAL TO HINGELINE	14.8983	CU.M.	526.1250	CU.FT.	66.9250	CU.CM.	4.0840	CU.IN.

FOOTNOTE-GENERAL-MODEL SCALE VALUES ARE DERIVED FROM FULL SCALE VALUES  
 UNLESS NOTED OTHERWISE.



TABLE III. - COMPONENT DIMENSIONAL DATA

COMPONENT- OMS PODS- M  
GENERAL DESCRIPTION- 2A LIGHTWEIGHT CONFIGURATION PER MC120074  
MODEL SCALE- 0.0165  
DRAWING NUMBER- VL70-000094  
TEST IDENTIFICATION- LA14

	FULL SCALE METRIC		FULL SCALE ENGLISH		MODEL SCALE METRIC		MODEL SCALE ENGLISH	
LENGTH	878.842	CM.	346.000	IN.	14.501	CM.	5.709	IN.
MAX WIDTH (AT XO=1450)	274.321	CM.	108.000	IN.	4.526	CM.	1.782	IN.
MAX DEPTH (AT XO=1500)	289.053	CM.	113.800	IN.	4.769	CM.	1.878	IN.
OMS POD CENTERLINE								
Z AXIS ORBITER	1178.308	CM.	463.900	IN.	19.442	CM.	7.654	IN.
Y AXIS ORBITER	203.200	CM.	80.000	IN.	3.353	CM.	1.320	IN.

FOOTNOTE- GENERAL- MODEL SCALE VALUES ARE DERIVED FROM FULL SCALE VALUES  
UNLESS NOTED OTHERWISE.

COMPONENT- BODY FLAP- F  
GENERAL DESCRIPTION- BODY FLAP 2A CONFIGURATION PER LINES VL70-000094.  
MODEL SCALE- 0.0165  
DRAWING NUMBER- VL70-000094 A  
TEST IDENTIFICATION- LA14

	FULL SCALE METRIC		FULL SCALE ENGLISH		MODEL SCALE METRIC		MODEL SCALE ENGLISH	
LENGTH	215.138	CM.	84.700	IN.	3.550	CM.	1.398	IN.
MAXIMUM WIDTH	673.101	CM.	265.000	IN.	11.106	CM.	4.372	IN.
MAXIMUM DEPTH	53.340	CM.	21.000	IN.	.880	CM.	.346	IN.
AREA PLANFORM	13.2517	SQ.M.	142.6400	SQ.FT.	36.0779	SQ.CM.	5.5921	SQ.IN.
AREA BASE	3.5903	SQ.M.	38.6460	SQ.FT.	9.7747	SQ.CM.	1.5151	SQ.IN.

FOOTNOTE- GENERAL- MODEL SCALE VALUES ARE DERIVED FROM FULL SCALE VALUES  
UNLESS NOTED OTHERWISE.





# Notes

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

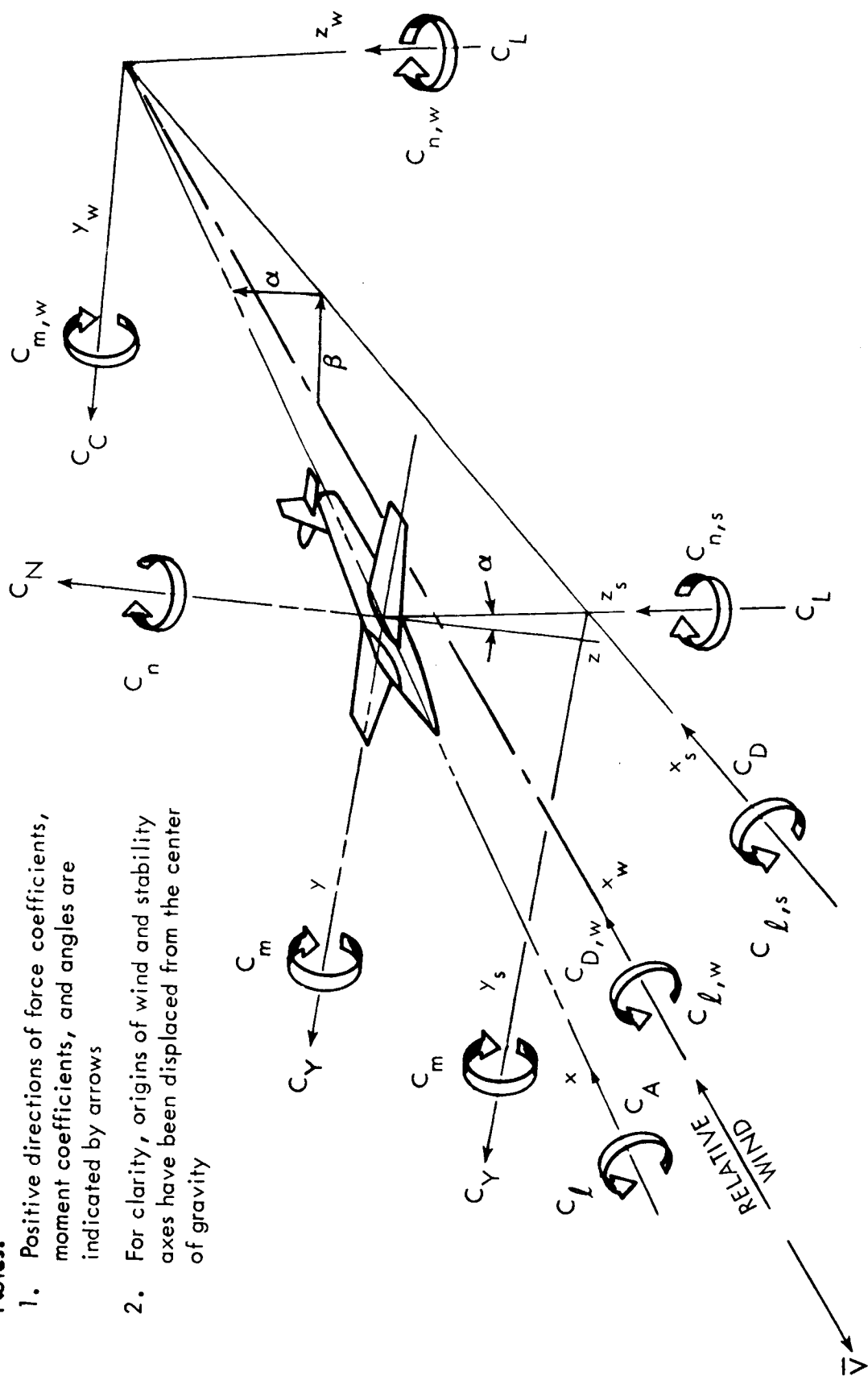


FIGURE 1. AXIS SYSTEMS

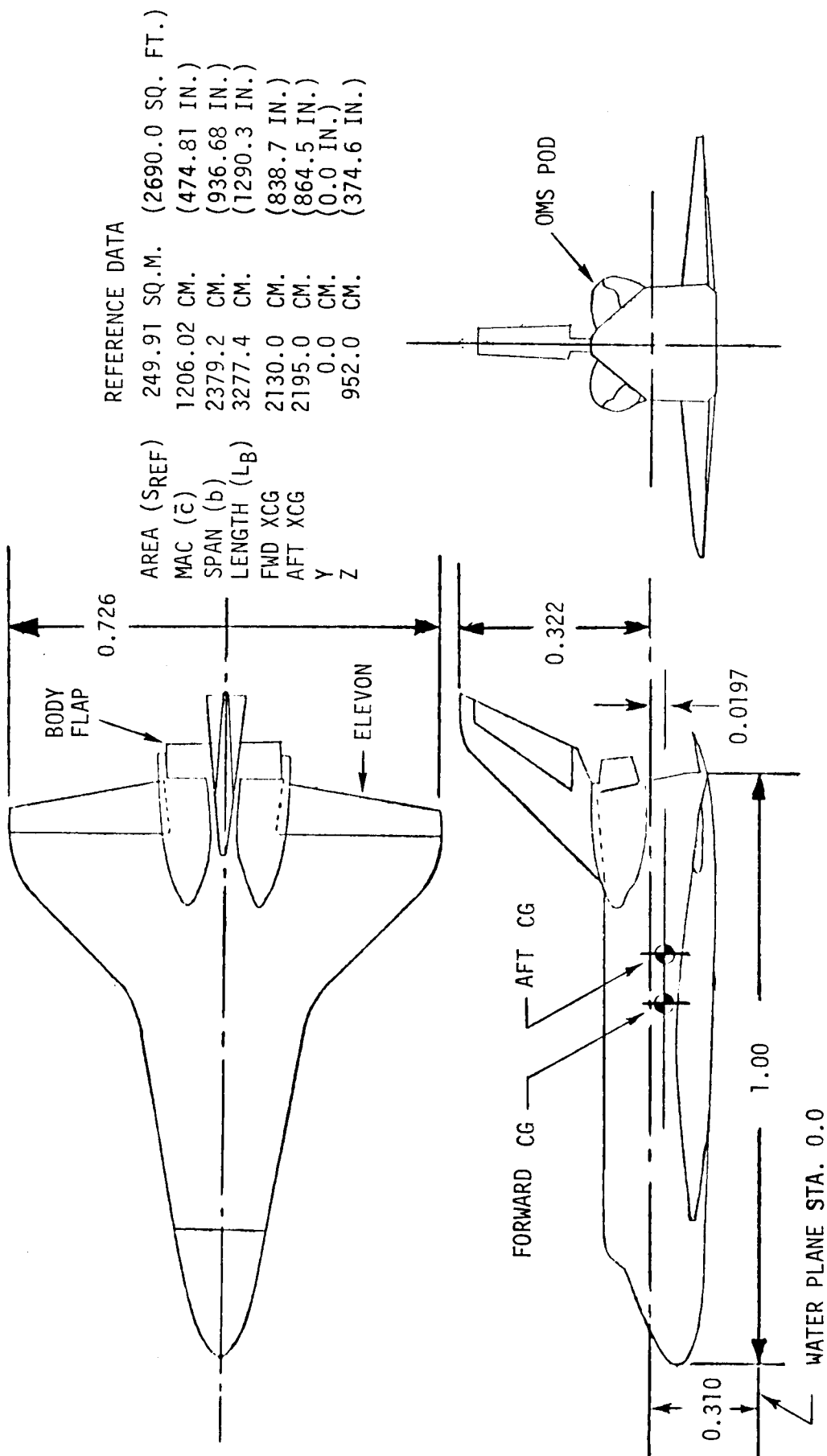


FIGURE 2. 089B ORBITER WITH DIMENSIONS NORMALIZED WITH RESPECT TO BODY LENGTH OF 3277.4 CM.(1290.3 IN.)

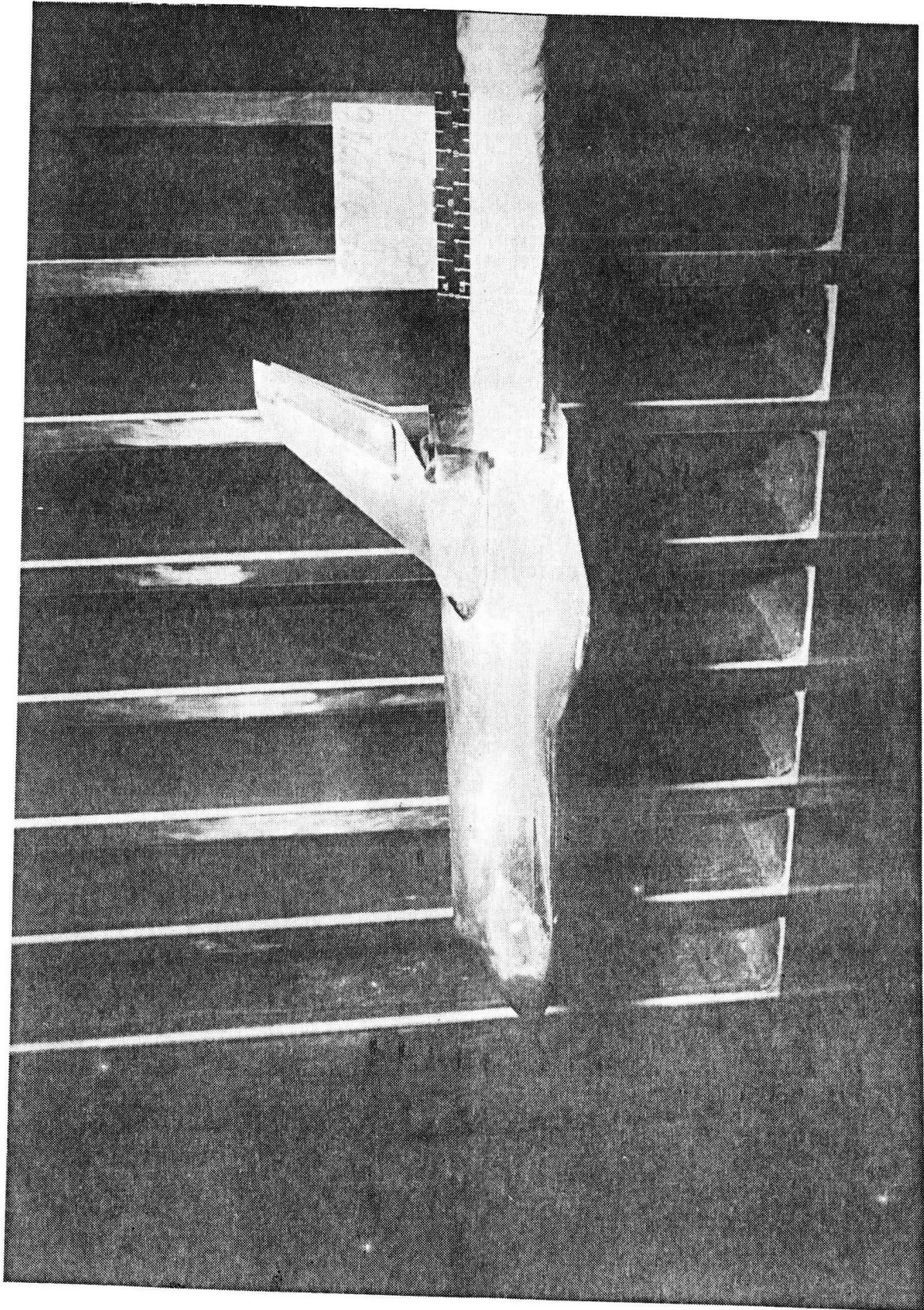


FIGURE 3. PHOTOGRAPH OF MODEL INSTALLED IN NASA UNITARY PLAN WIND TUNNEL

## DATA FIGURES

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    BOFLAP    RUOFLR  
 (RPG05)    LA-14, ROCKWELL ORB 0638 V/MOD. NOSE (BVMF)    1.000    .000    .000    40.000  
 (RPG06)    LA-14, ROCKWELL ORB 0638 V/MOD. NOSE (BVMF)    2.000    .000    .000    40.000

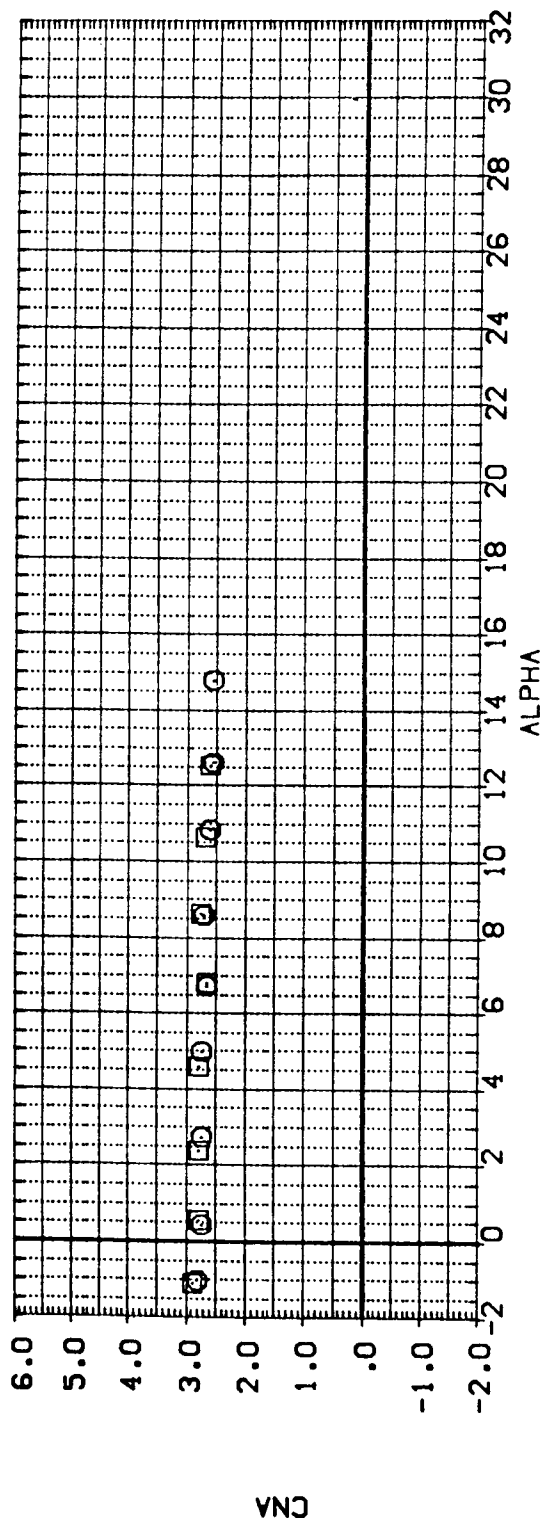
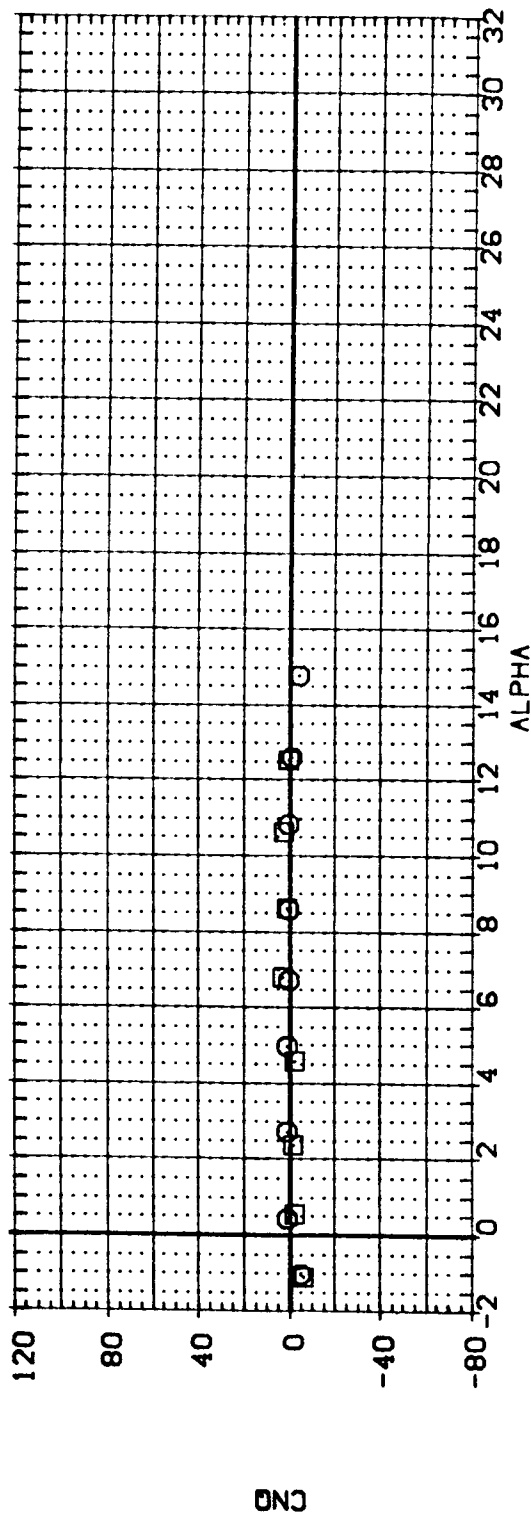


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH

CA/MACH = 1.60

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BDFLAP      RUDELAR

(RPG05)      LA-14, ROCKWELL CRB 0898 V/MOD, NOSE (BVMVF)      1.000      .000      .000      40.000

(RPG06)      LA-14, ROCKWELL CRB 0898 V/MOD, NOSE (BVMVF)      2.000      .000      .000      40.000

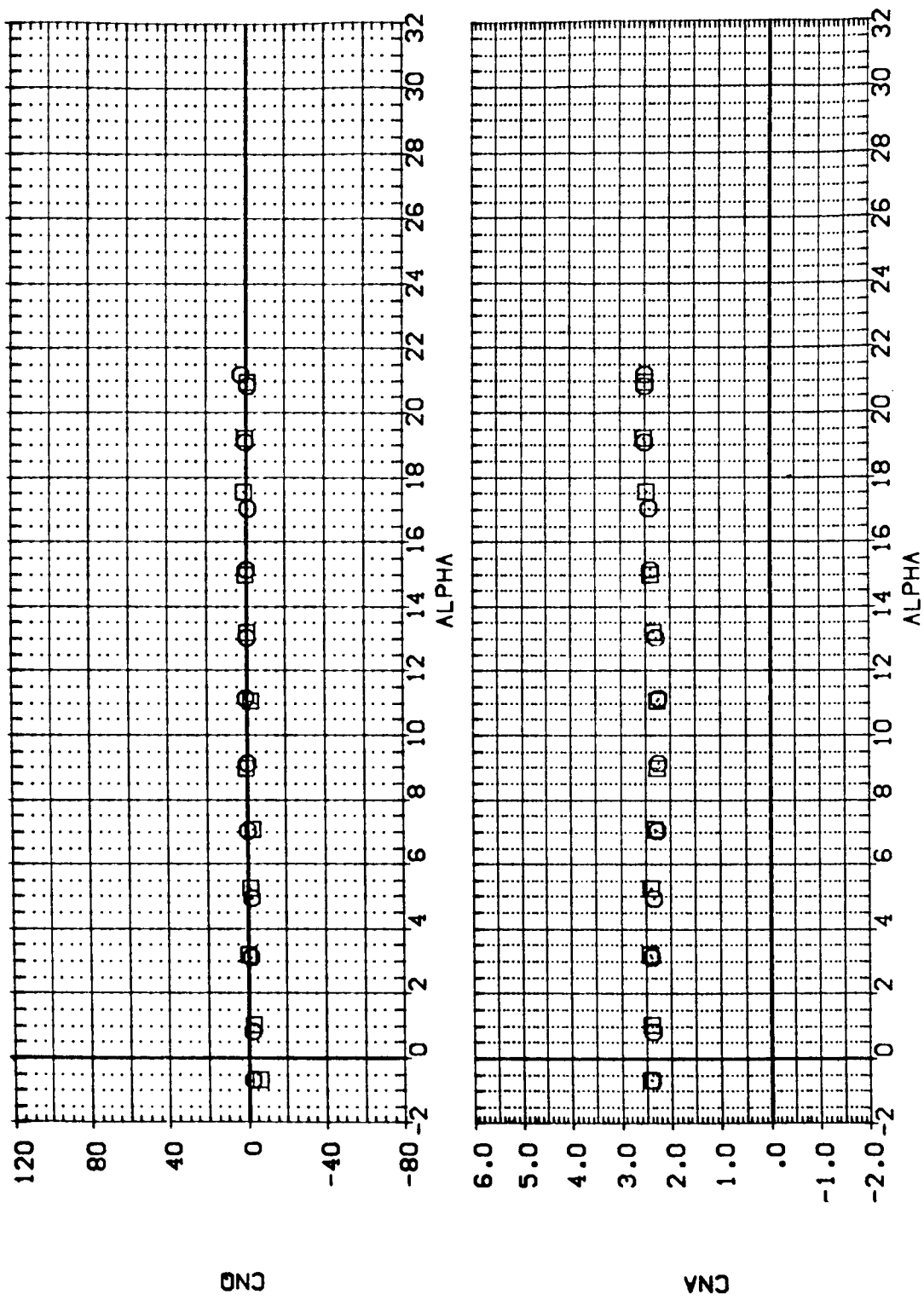


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH

(B)MACH = 1.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RPGPOS)    LA-14, ROCKWELL 098 0898 V/MOD. NOSE (BVMF)  
 (RPGPOS)    LA-14, ROCKWELL 098 0898 V/MOD. NOSE (BVMF)

CG-LOC    ELEVTR    BDFLAP    RUDELAR  
 1.000    .000    .000    40.000  
 2.000    .000    .000    40.000

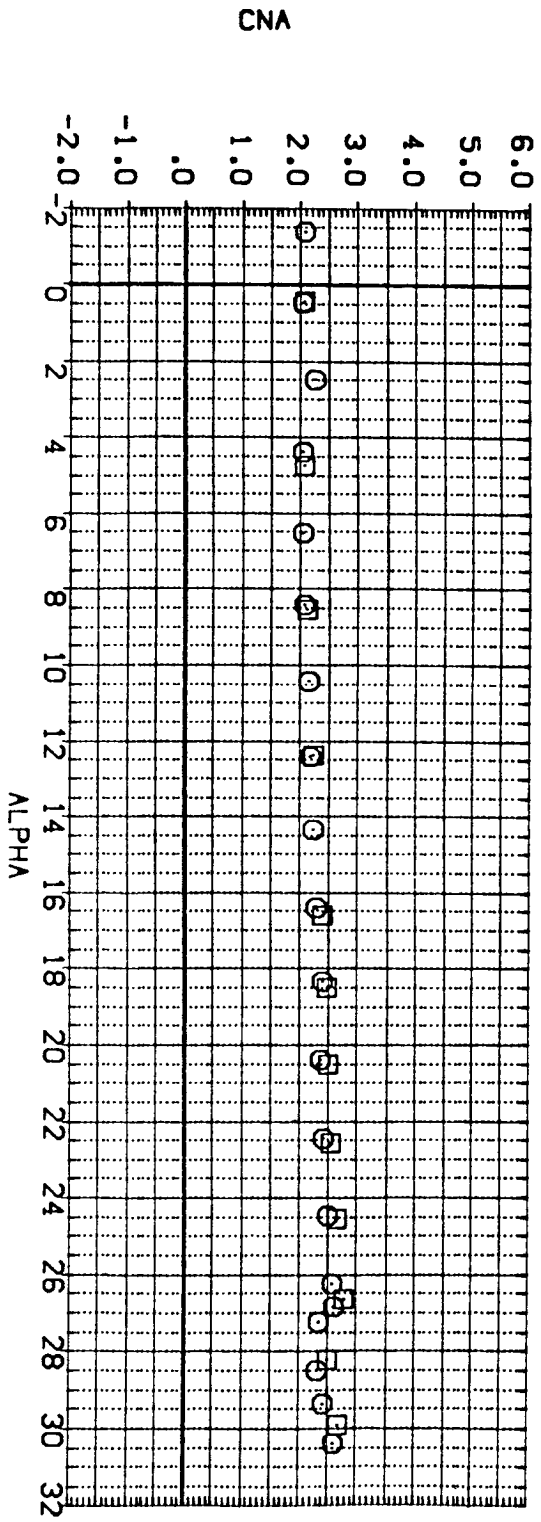
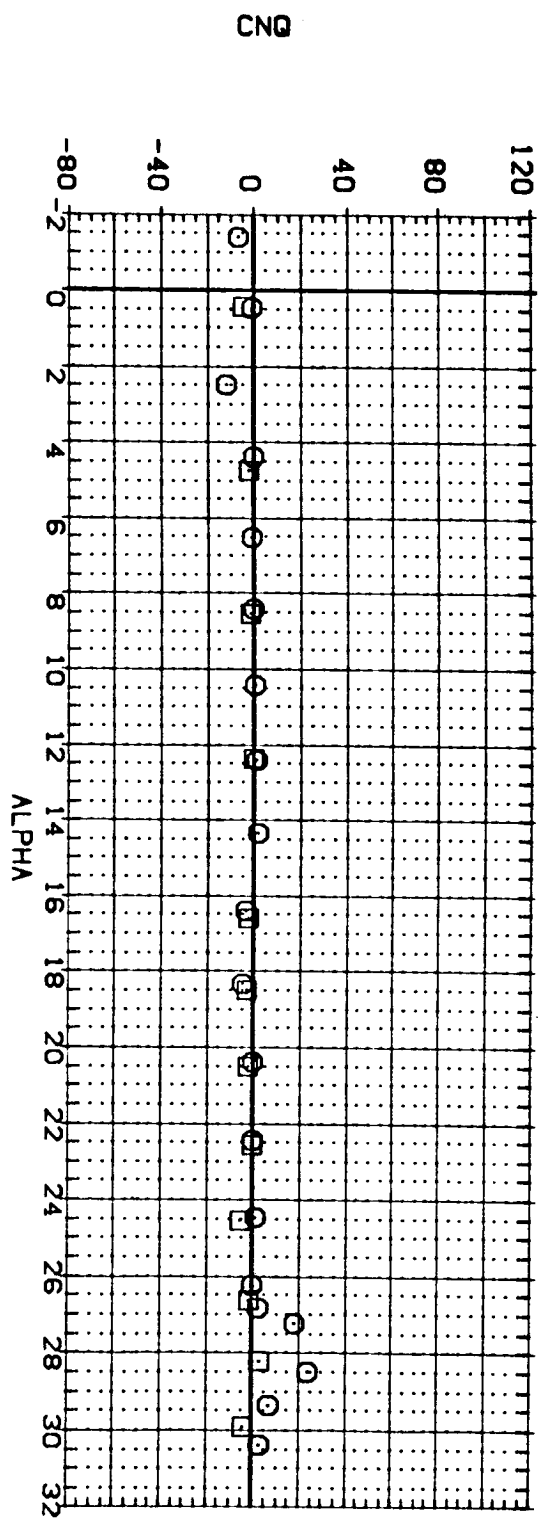


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH  
 (C)MACH = 2.36

DATA SET SYMBO. CONFIGURATION DESCRIPTION  
 (RPG-05) ☐ LA-14, ROCKWELL DB8 DB88 V/HDD. NOSE (BVMF)  
 (RPG-06) ☐ LA-14, ROCKWELL DB8 DB88 V/HDD. NOSE (BVMF)

CG-LDC ELEVTR 80FLAP RUDELR  
 1.000 .000 .000  
 2.000 .000 .000  
 40.000

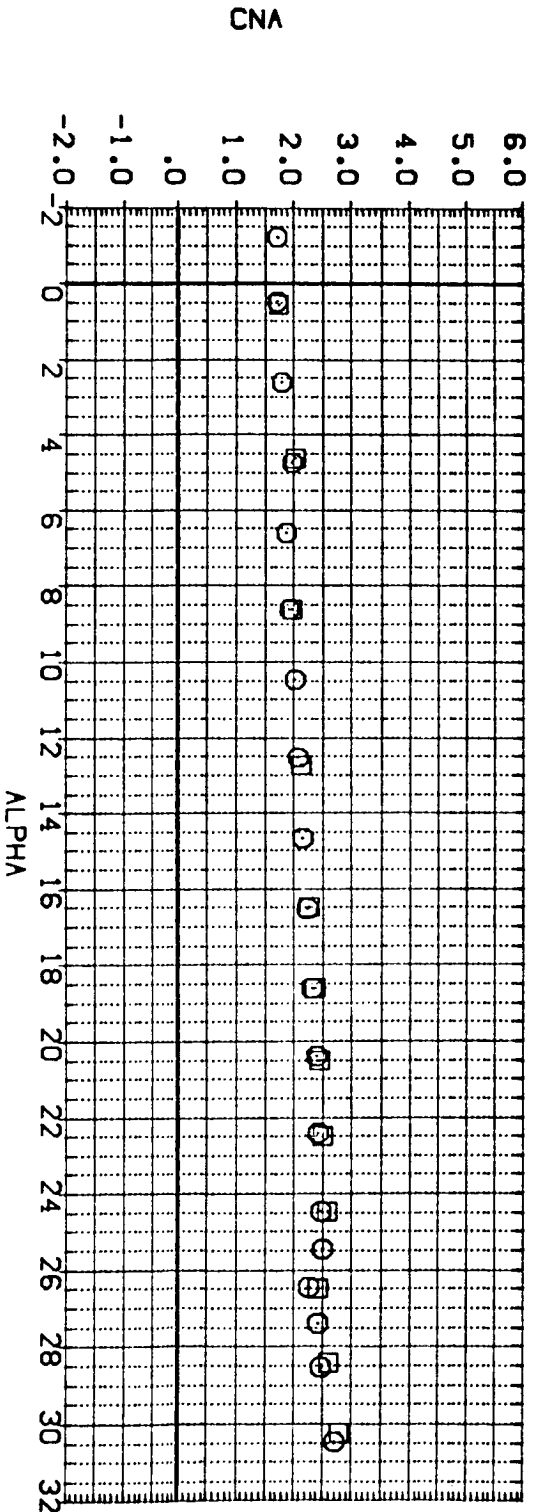
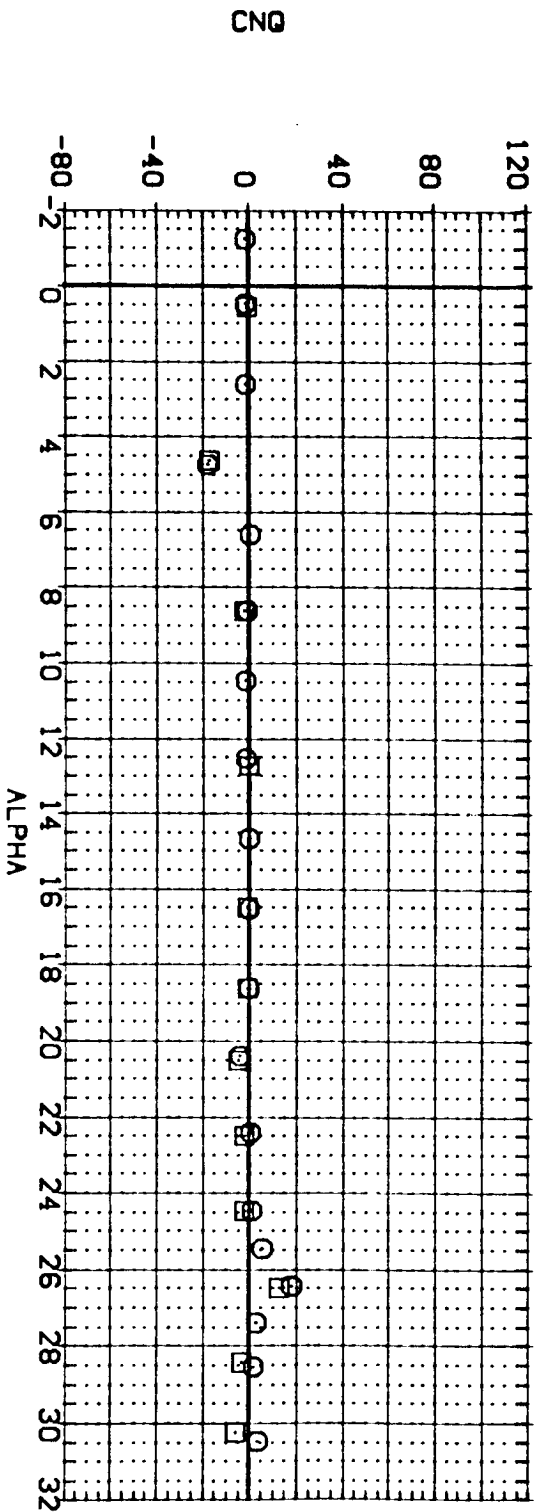


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH  
 (D)MACH = 2.86



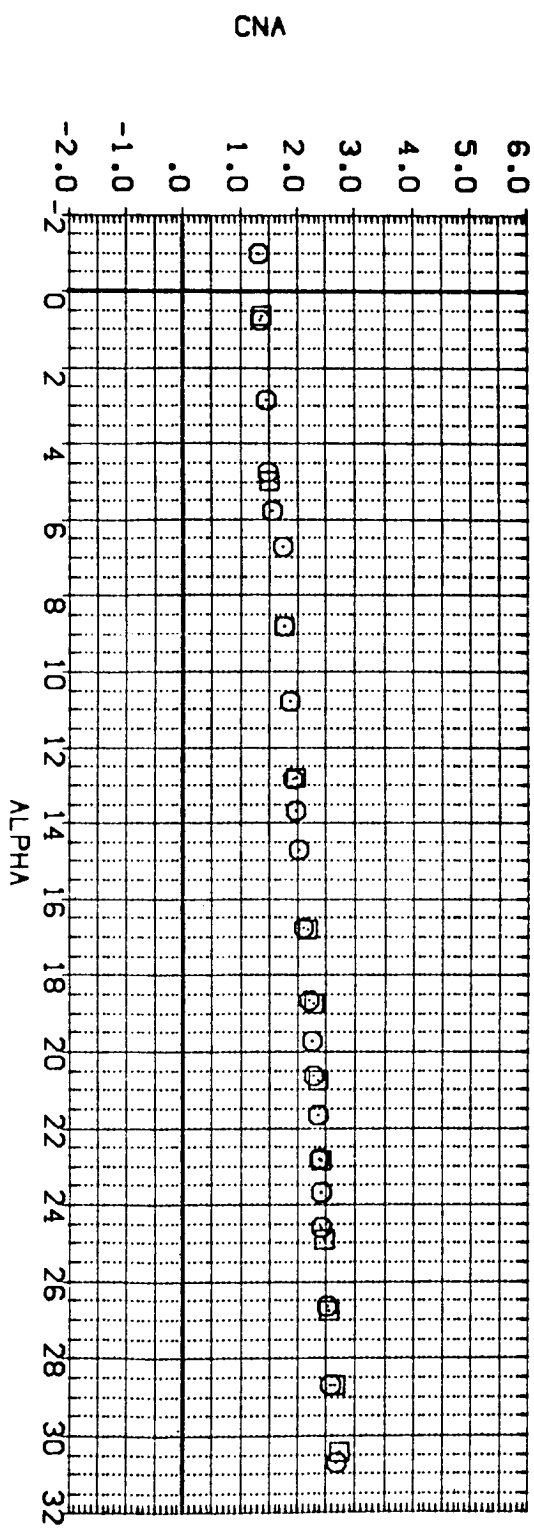
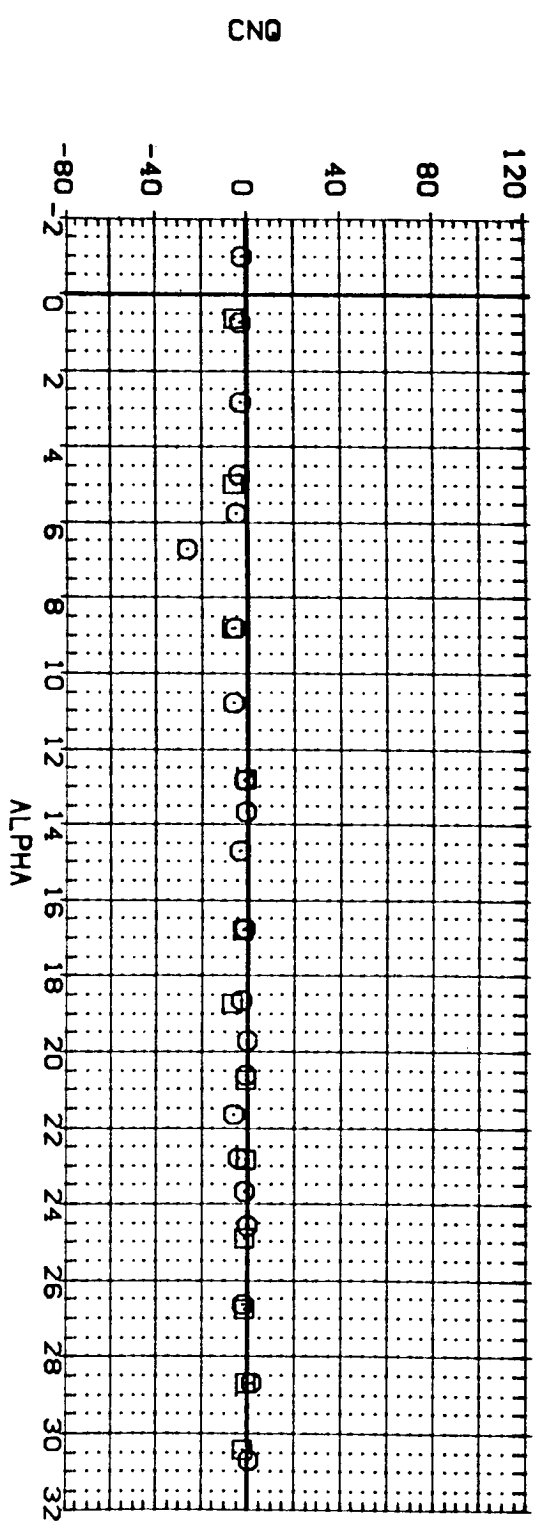


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH  
 (CEMACH = 3.96)

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RPG05) LA-14, ROCKWELL 088 0898 V/MOD. NOSE (BVMF)  
 (RPG06) LA-14, ROCKWELL 088 0898 V/MOD. NOSE (BVMF)

CG-LOC 1.072 ELEVTR .000 BOFLAP .000 RUOFLR 40.000  
 2.000 .000 .000 40.000

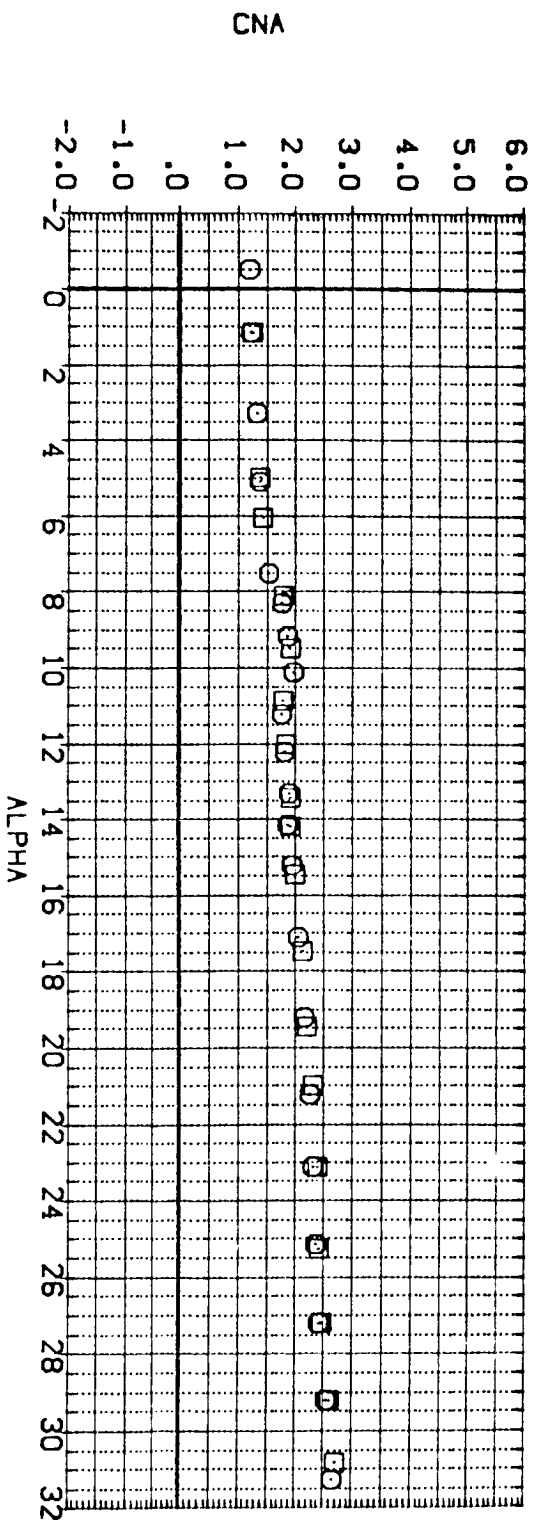
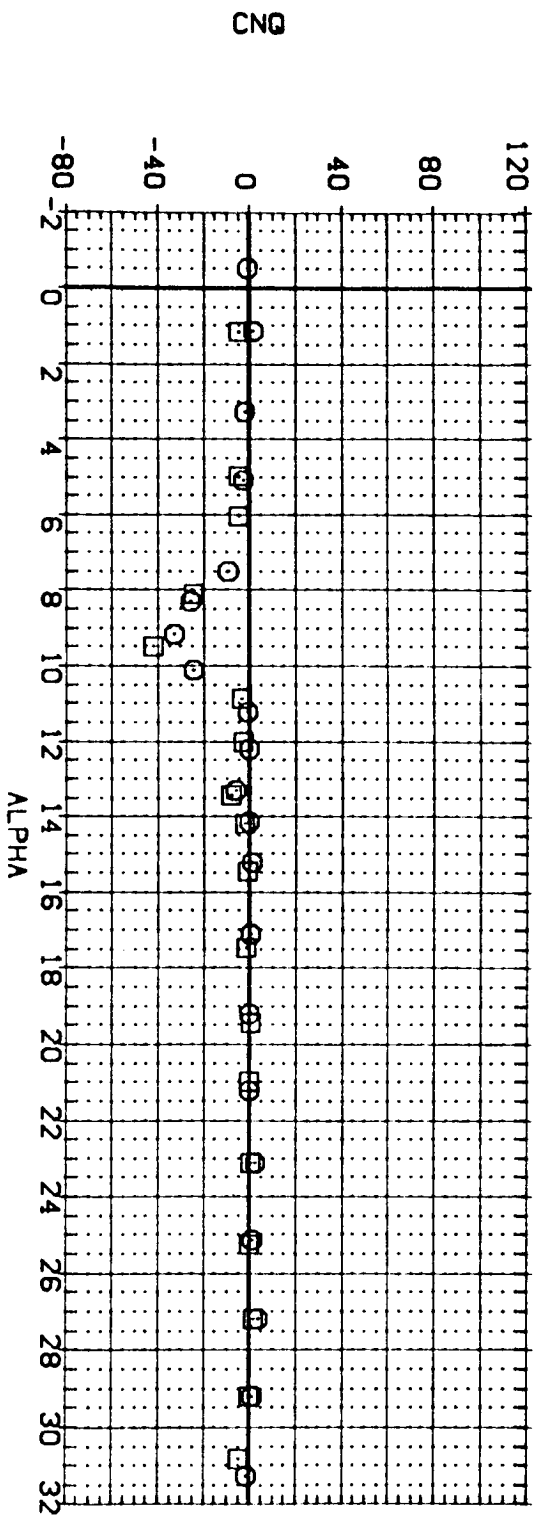


FIGURE 4. EFFECT OF C. 6. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH  
 (CF)MACH = 4.63

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    BOFLAP    RUFLR

(RPG05)    LA-14, ROCKWELL ORB 0898 V/MOD. NOSE (BW/MF)    1.000    .000    .000    40.000

(RPG06)    LA-14, ROCKWELL ORB 0898 V/MOD. NOSE (BW/MF)    2.000    .000    .000    40.000

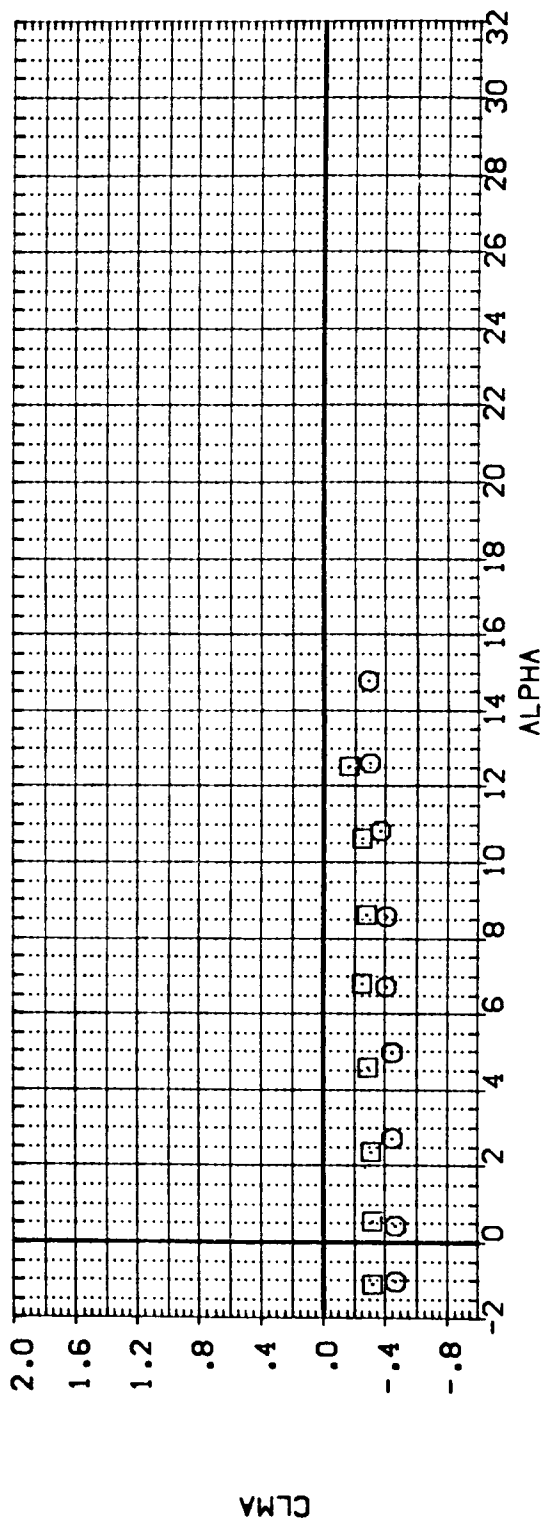
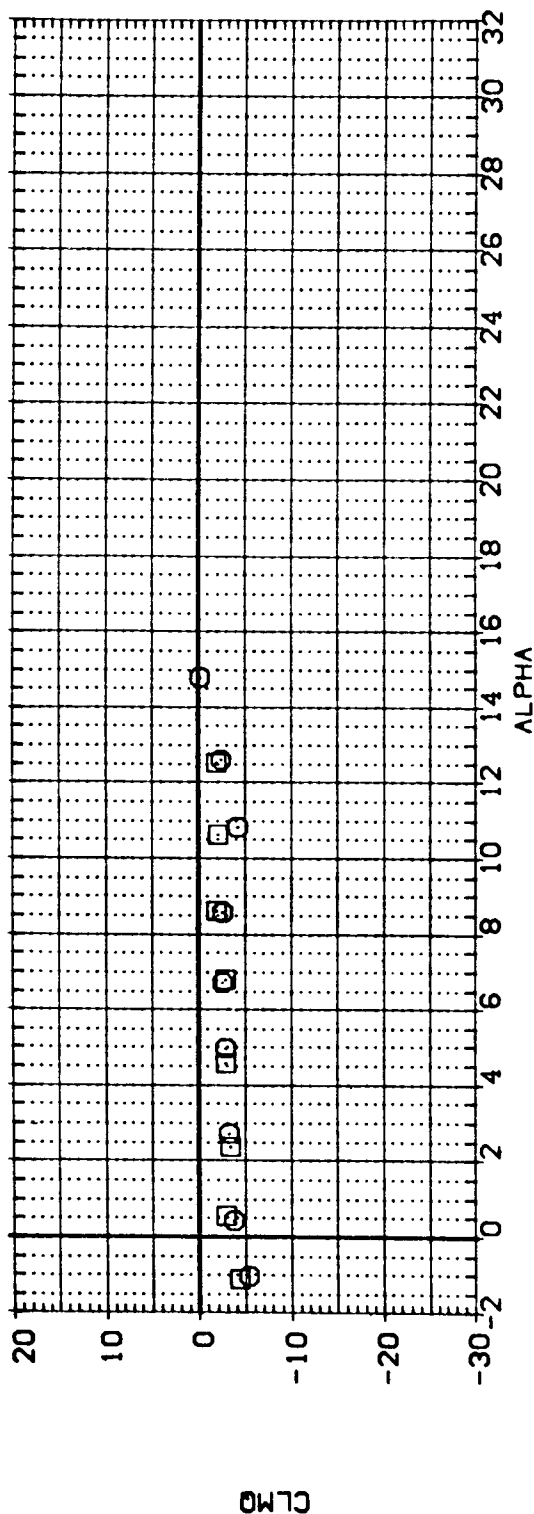


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH

(A)MACH = 1.60

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    BOFLAP    RUOFLR  
 (RPGP05)    LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BVVHF)  
 (RPGP06)    LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BVVHF)

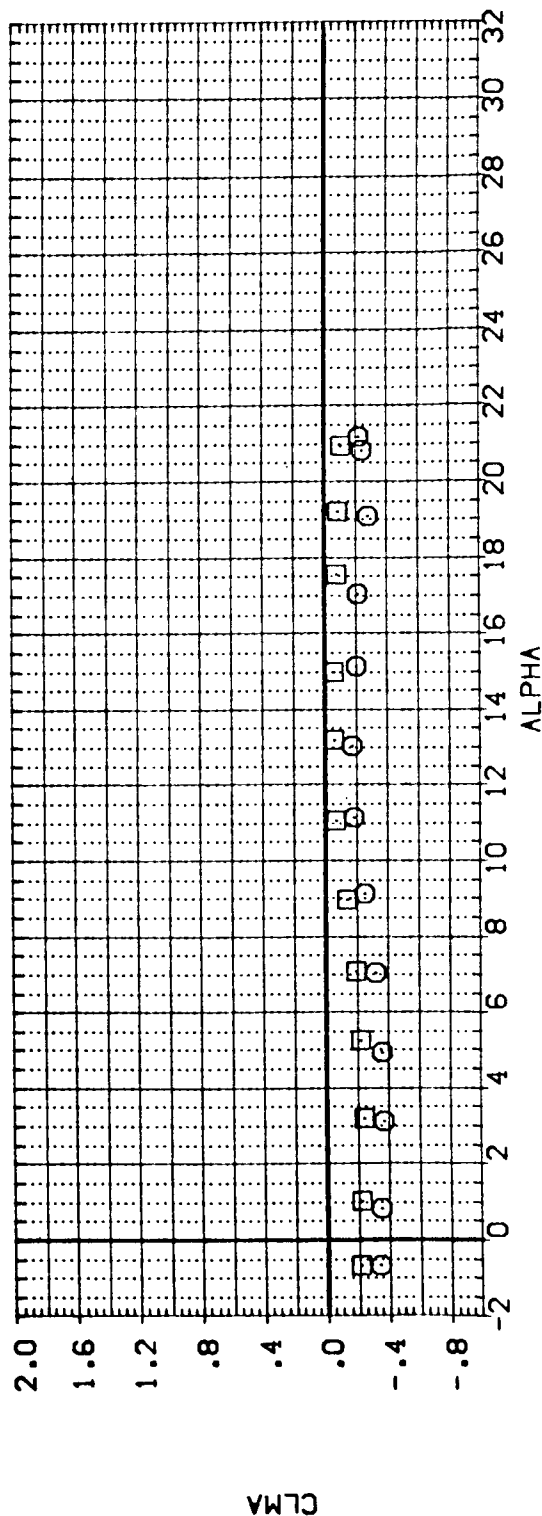
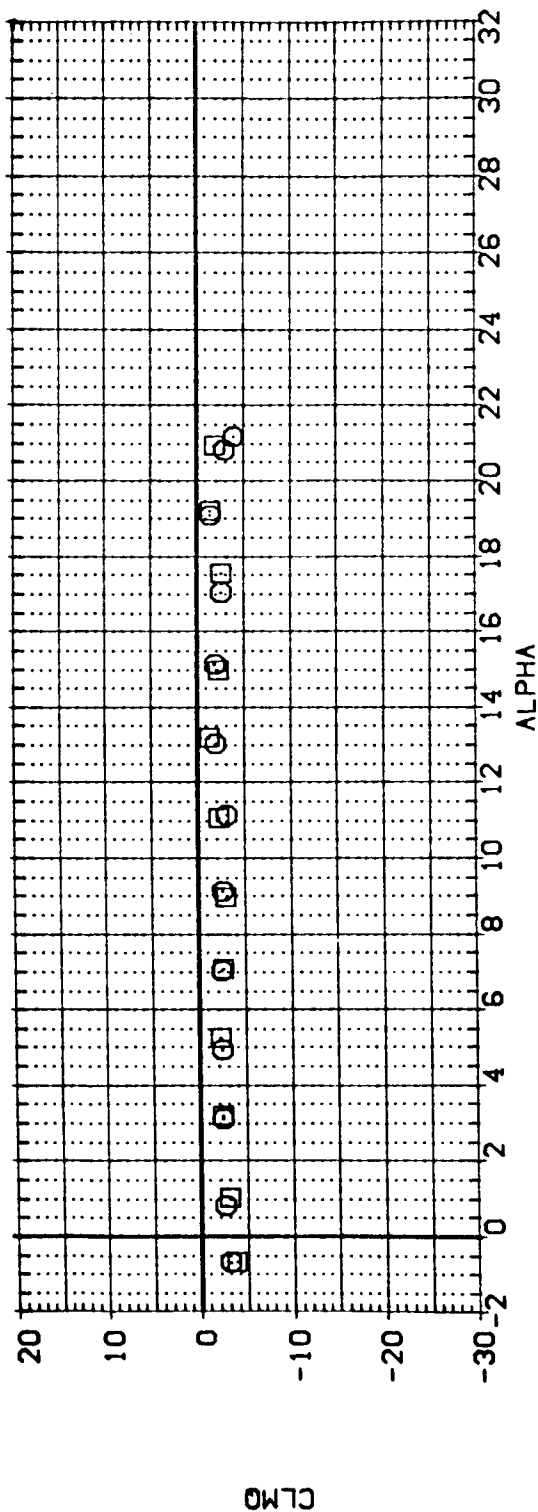


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH

(B)MACH = 1.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    BOFLAP    RUOFLR  
 (RPGP05)    LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BVMVF)    1.000    .000    .000    40.000  
 (RPGP06)    LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BVMVF)    2.000    .000    .000    40.000

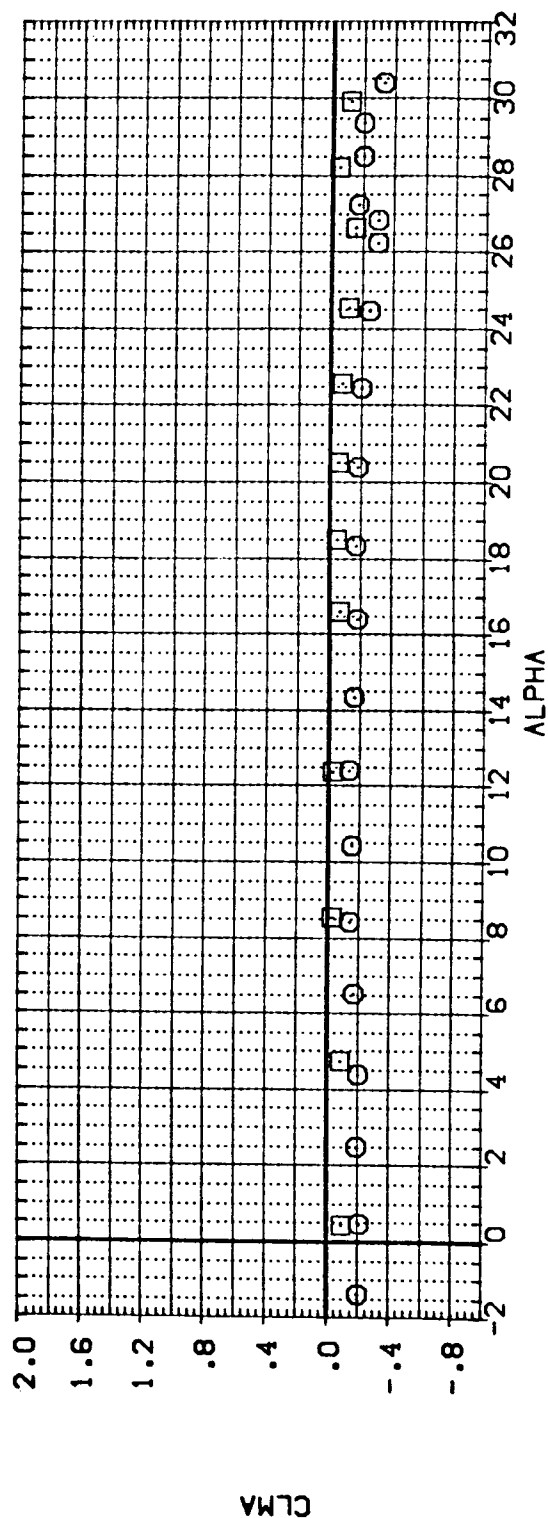
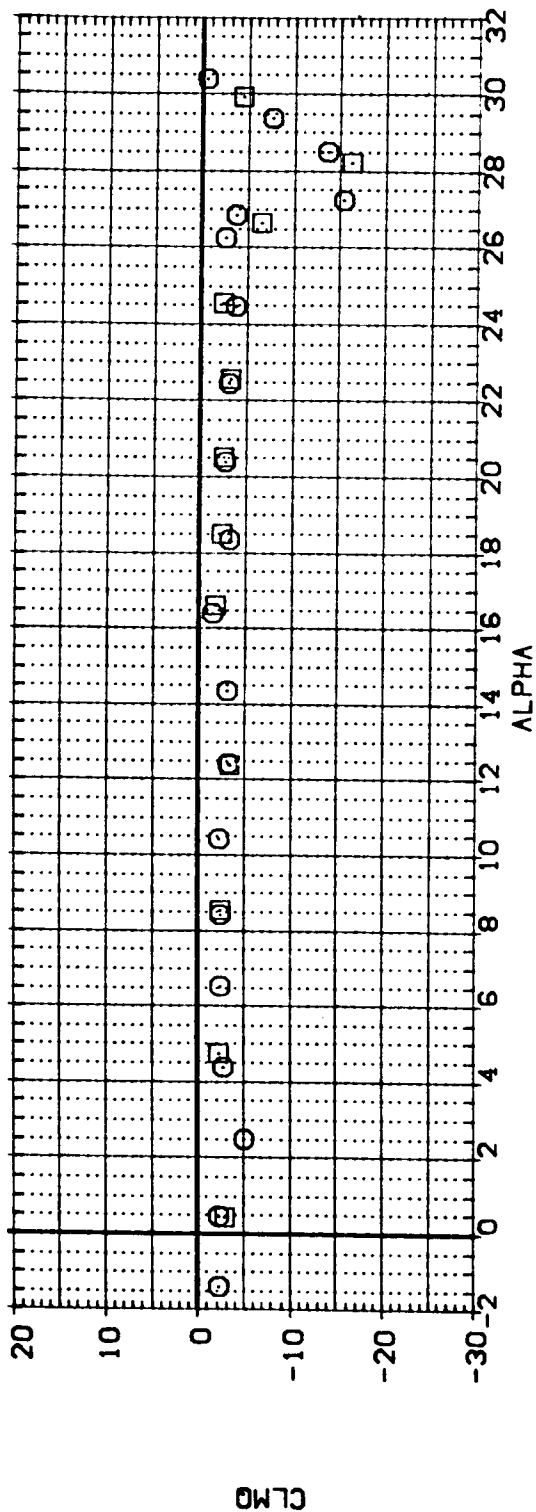


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH

(C)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-L0C	ELEVTR	BOFLAP	RJDFLR
(RPGPOS)	LA-14; ROCKWELL ORB D698 V/MOD.	1.000	.000	.000	40.000
(RPGPOS)	LA-14; ROCKWELL ORB D698 V/MOD.	2.000	.000	.000	40.000

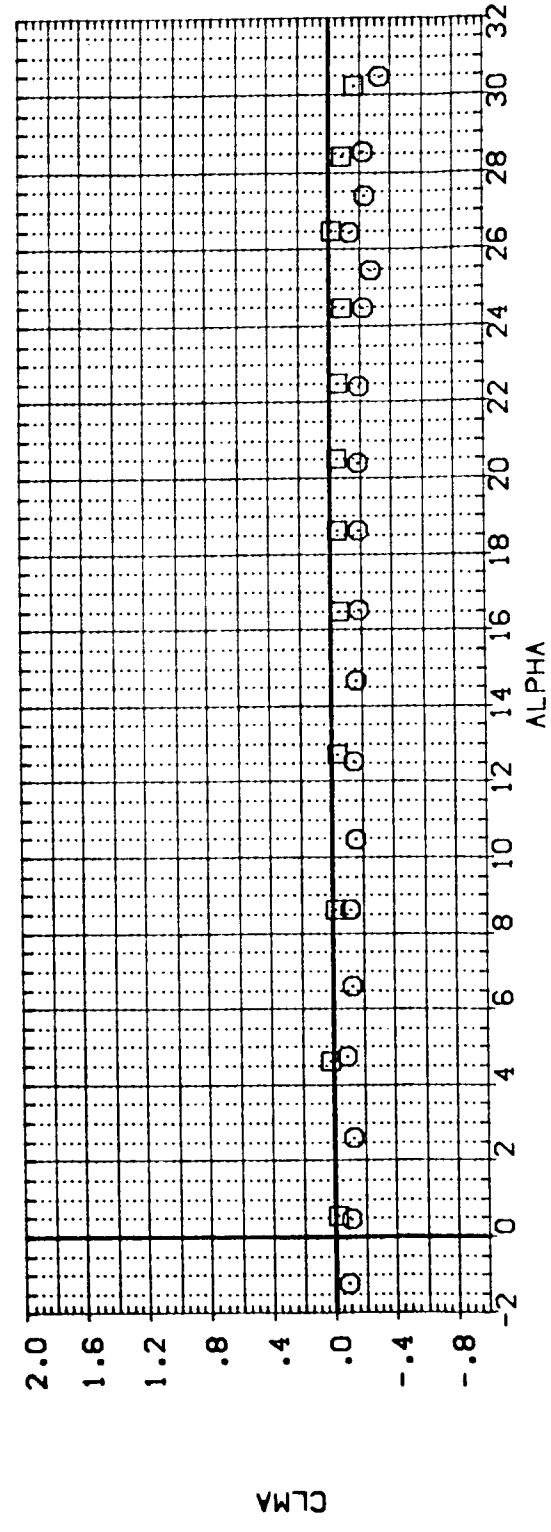
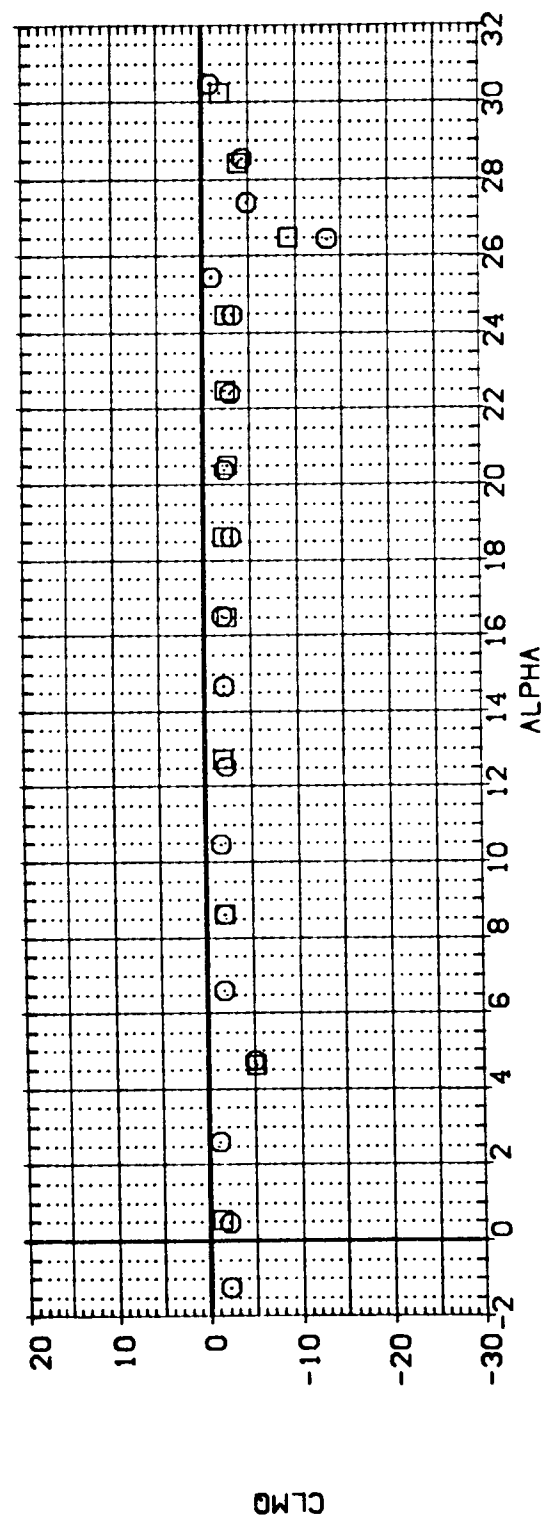


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH

(D)MACH = 2.86

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BOFLAP      RUOFLR  
 (RPGP05)      LA-14: ROCKWELL ORB 0858 V/MOD. NOSE (BVMVF)      1.000      .000      .000      40.000  
 (RPGP06)      LA-14: ROCKWELL ORB 0858 V/MOD. NOSE (BVMVF)      2.000      .000      .000      40.000

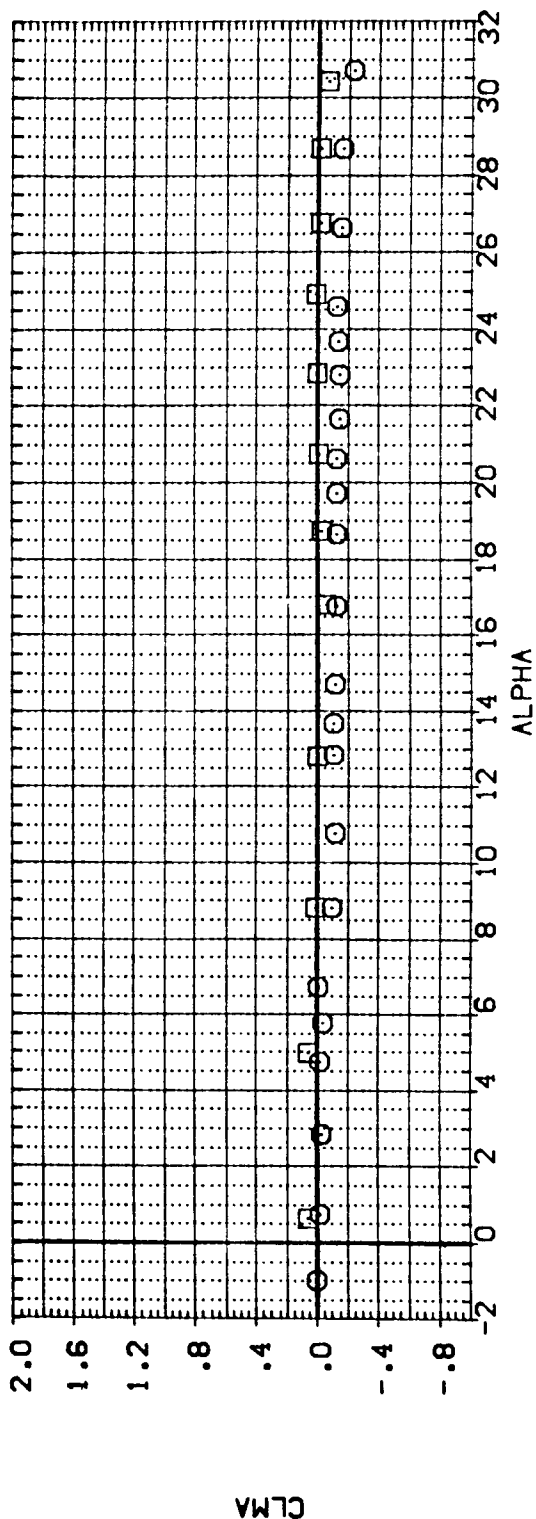
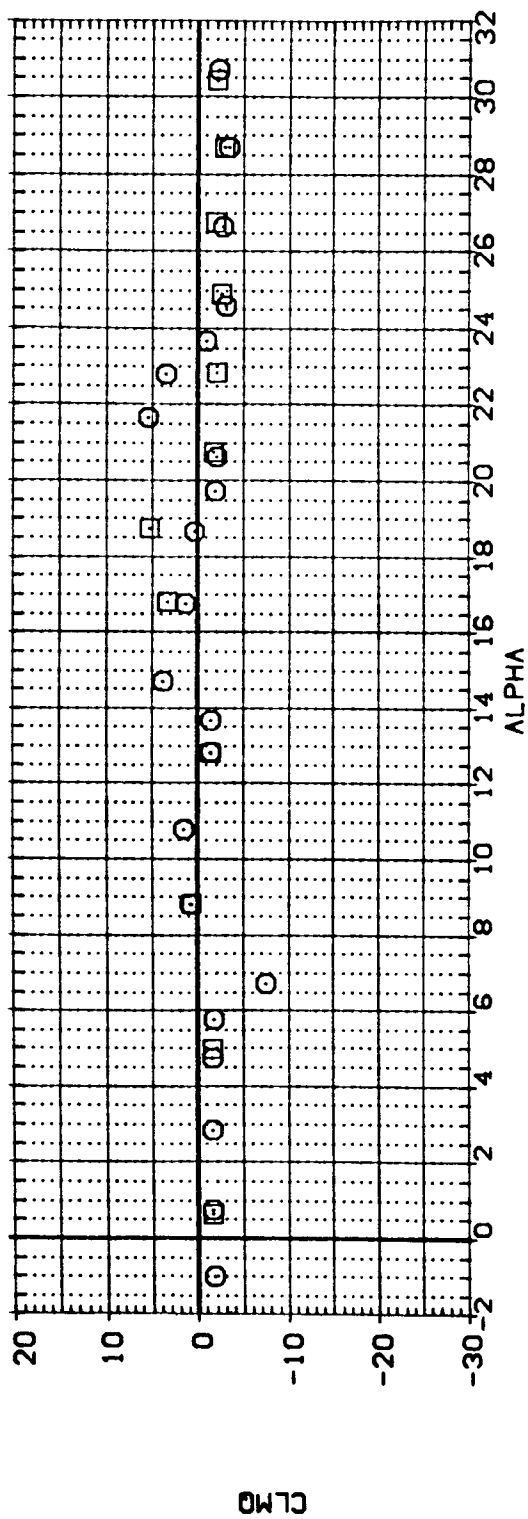


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH

(E)MACH = 3.96

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BOFLAP      RUOFLR  
 (RPGP05)      LA-14, ROCKWELL ORB 0698 V/MOD. NOSE (BVMVF)      1.000      .000      .000      40.000  
 (RPGP06)      LA-14, ROCKWELL ORB 0698 V/MOD. NOSE (BVMVF)      2.000      .000      .000      40.000

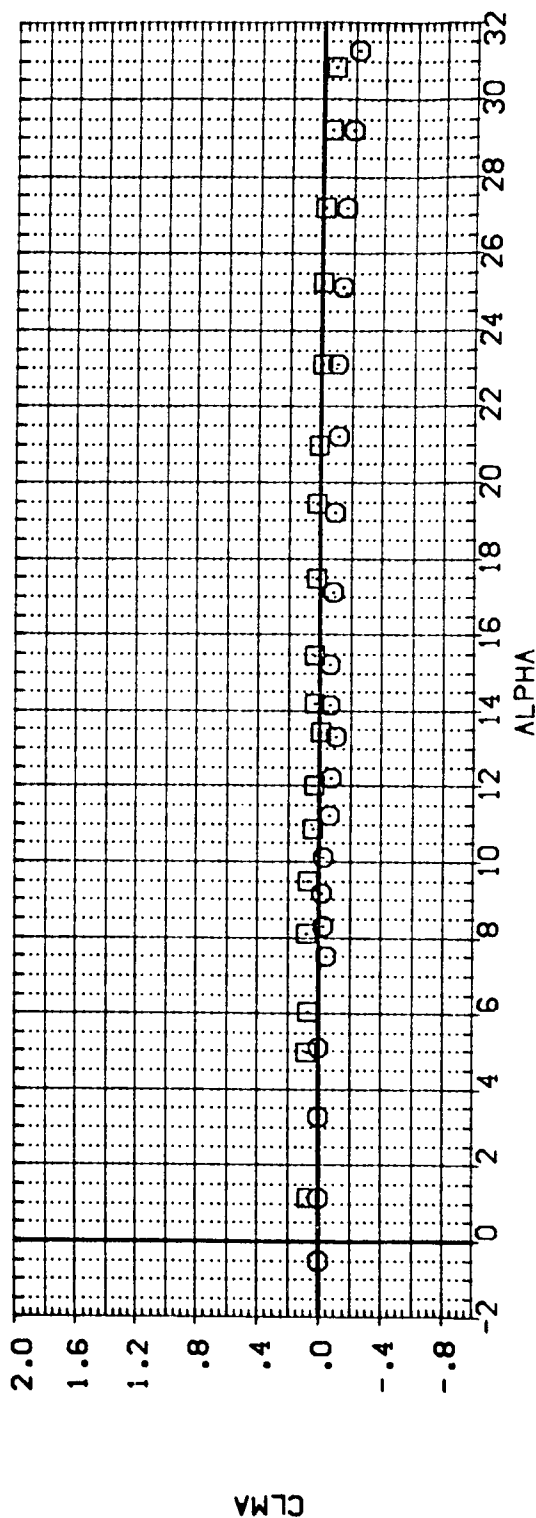
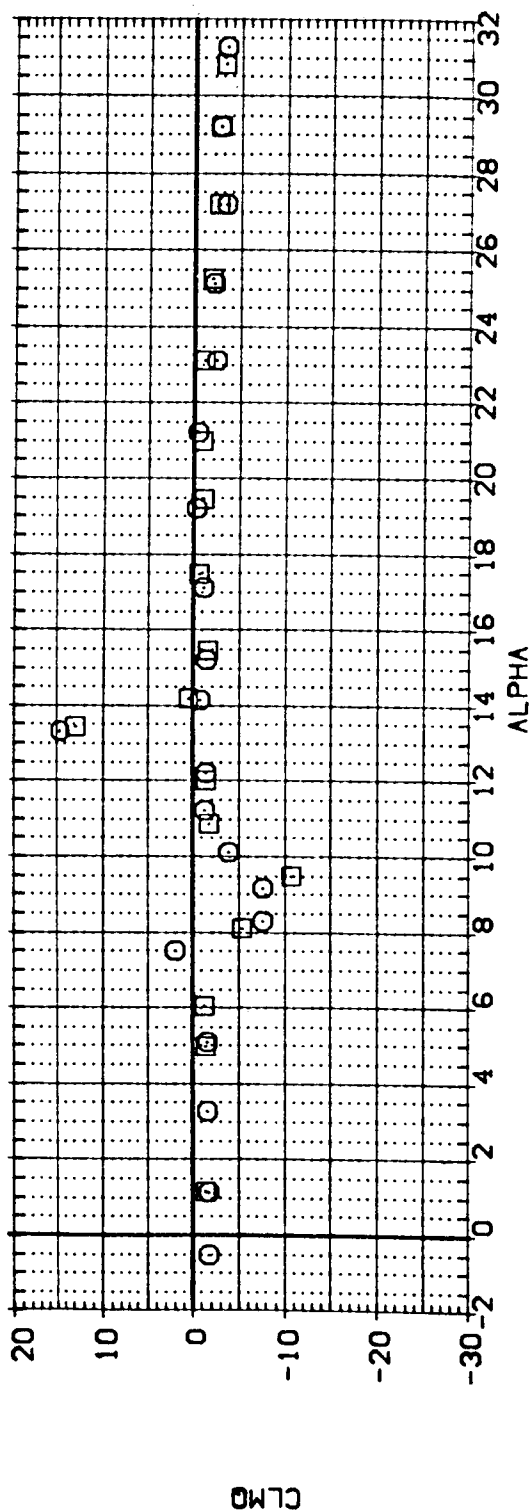


FIGURE 4. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN PITCH

(F)MACH = 4.63



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 (RPGY03)    LA-14; ROCKWELL DRB 0898 V/MOD. NOSE (BVVM )    1.000    .000    40.000  
 (RPGY04)    LA-14; ROCKWELL DRB 0898 V/MOD. NOSE (BVVM )    2.000    .000    40.000

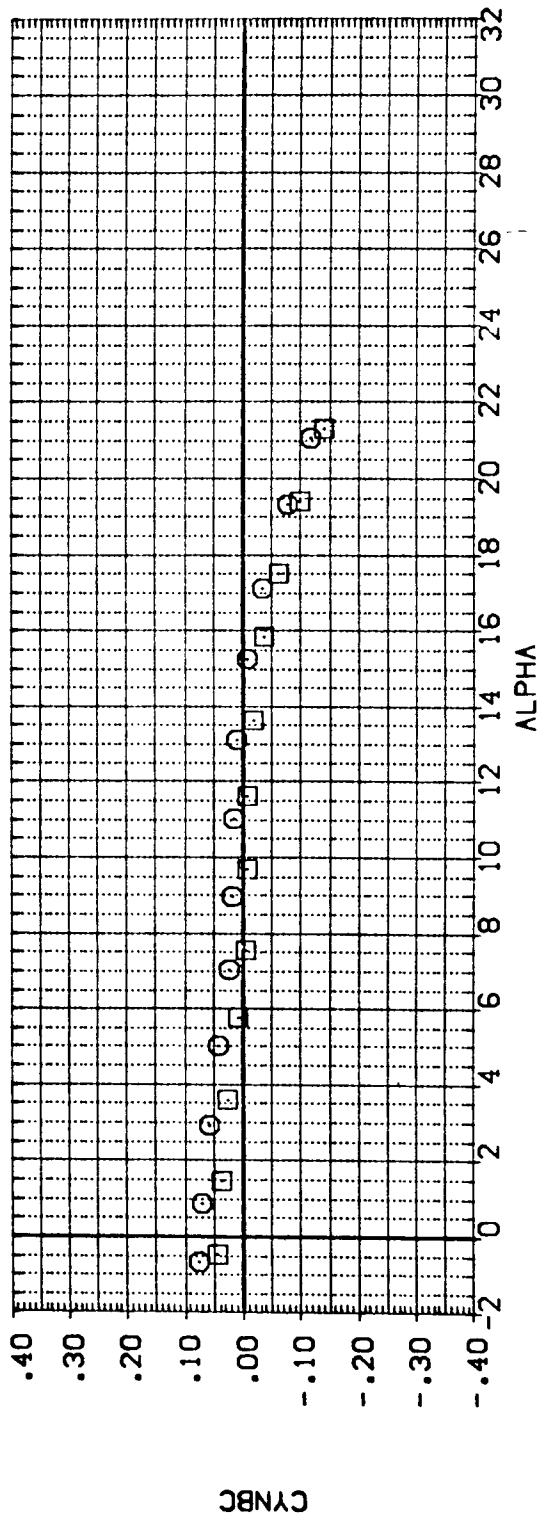
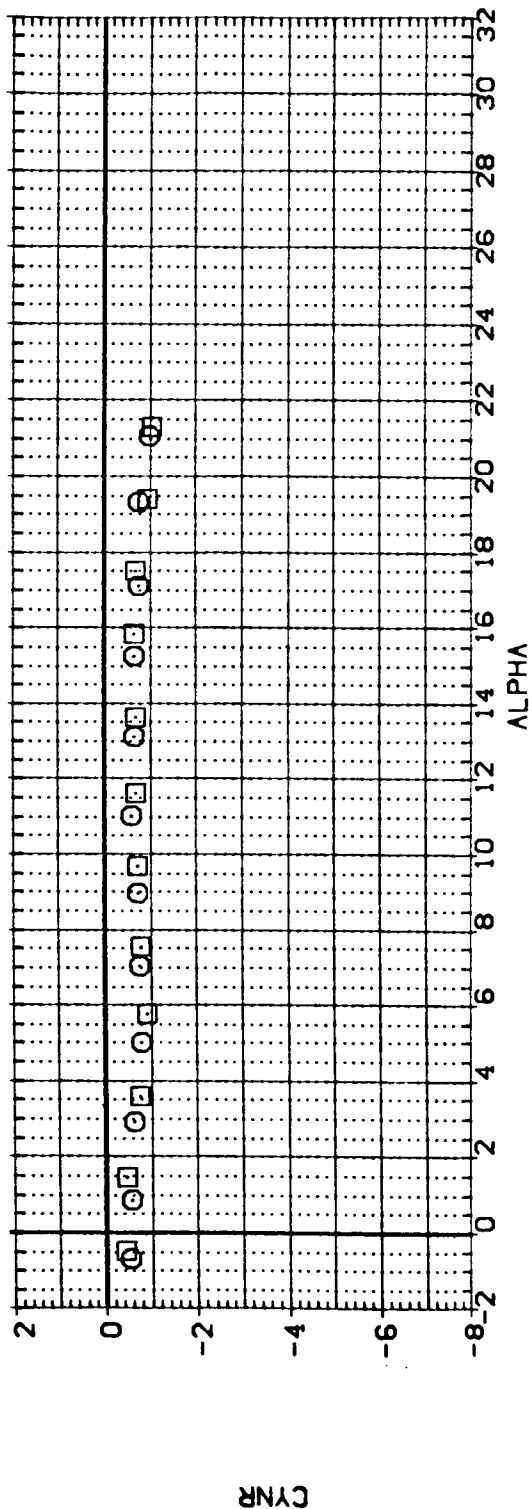


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW

(M)MACH = 1.90

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 [RPGV03]      LA-14; ROCKWELL DRB D898 V/MOD. NOSE (BVM)      1.000      .000      40.000  
 [RPGV04]      LA-14; ROCKWELL DRB D898 V/MOD. NOSE (BVM)      2.000      .000      40.000

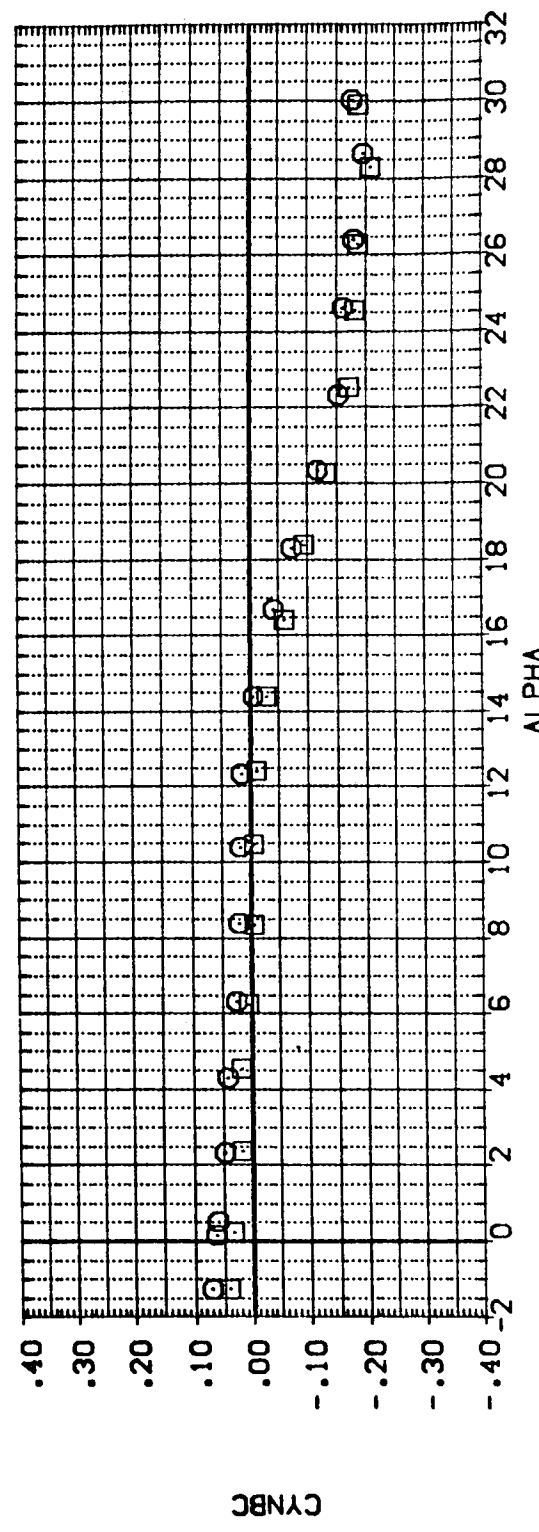
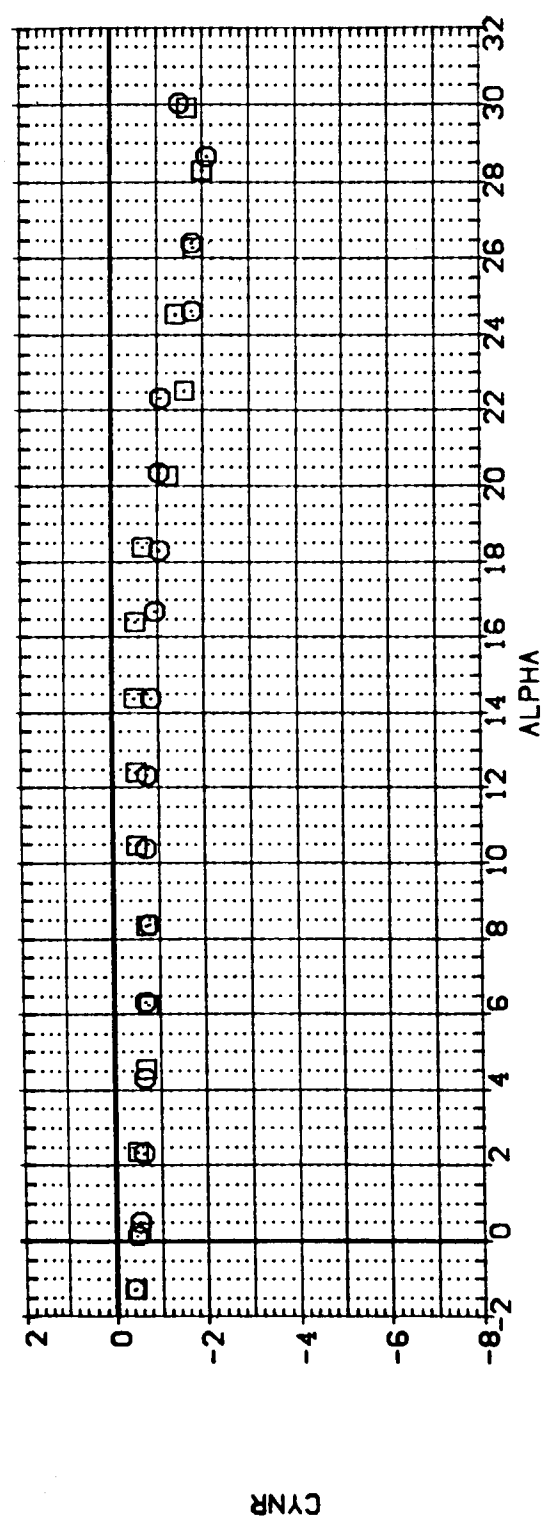


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW

(B)MACH = 2.36

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR

(RPGV03)    LA-14: ROCKWELL ORB 0898 V/MOD. NOSE (BVVM) }    1.000    .000    40.000

(RPGV04)    LA-14: ROCKWELL ORB 0898 V/MOD. NOSE (BVVM) }    2.000    .000    40.000

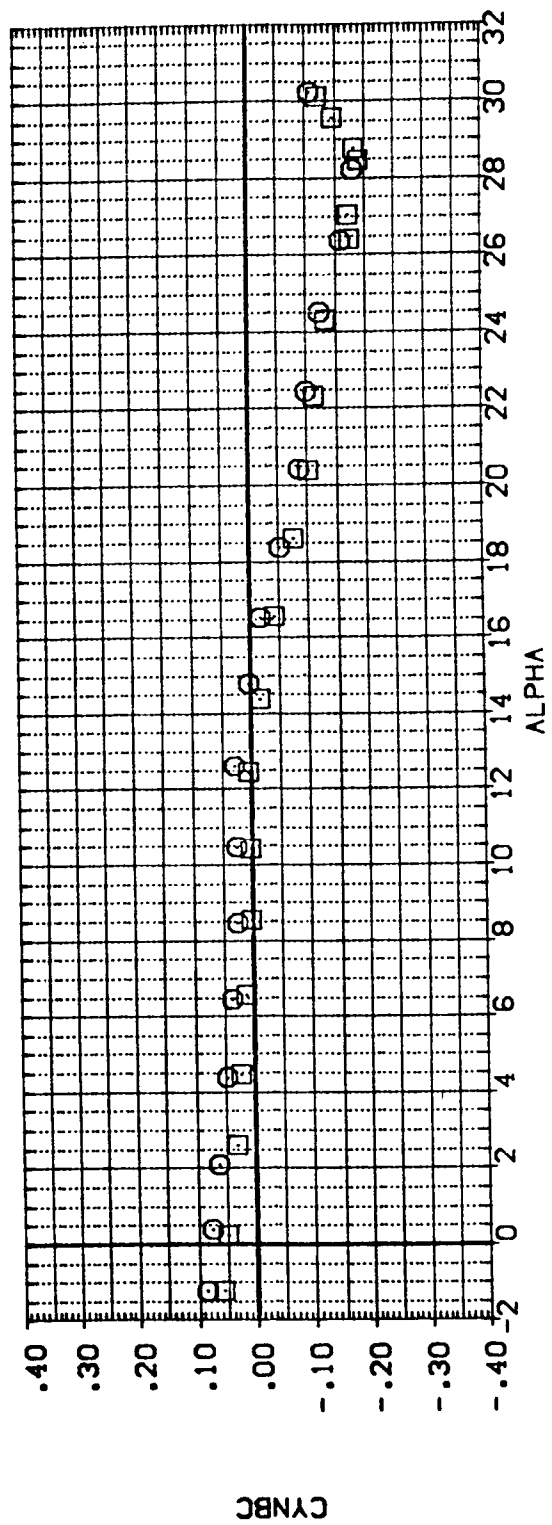
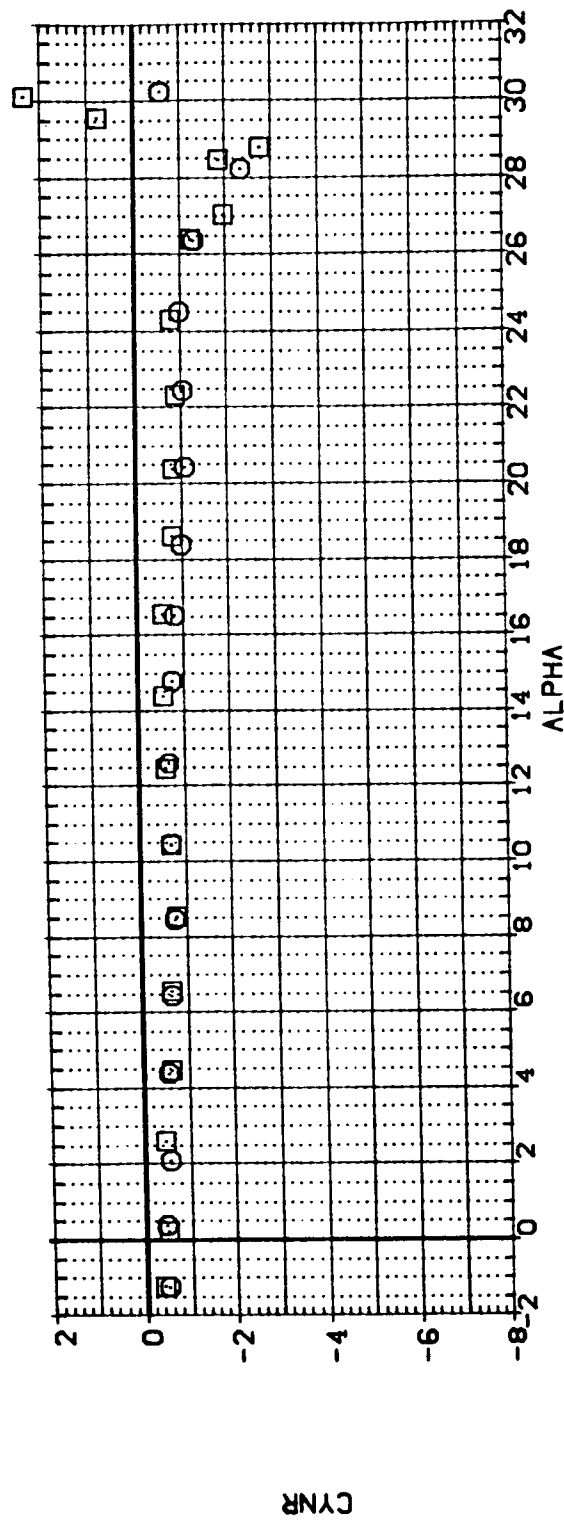


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW

(CJ)MACH = 2.86

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR

[RPGV03]      LA-14; ROCKWELL OR8 D898 V/HOD. NOSE (BVVM )      1.000      .000      40.000

[RPGV04]      LA-14; ROCKWELL OR8 D898 V/HOD. NOSE (BVVM )      2.000      .000      40.000

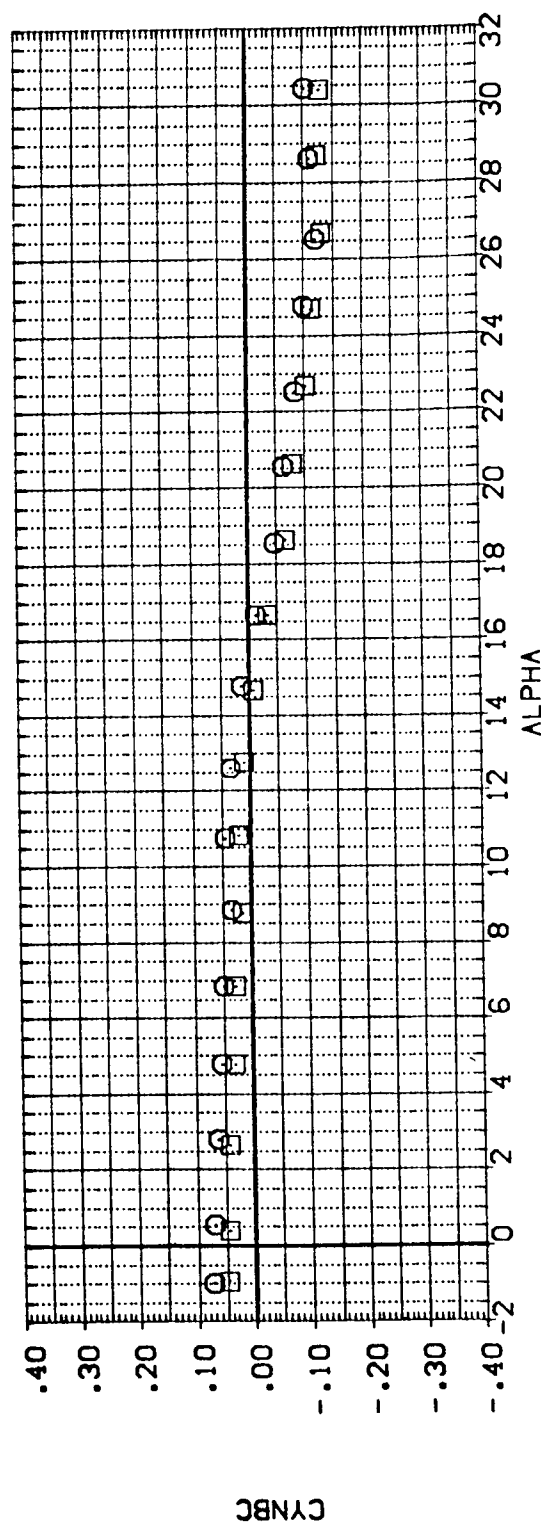
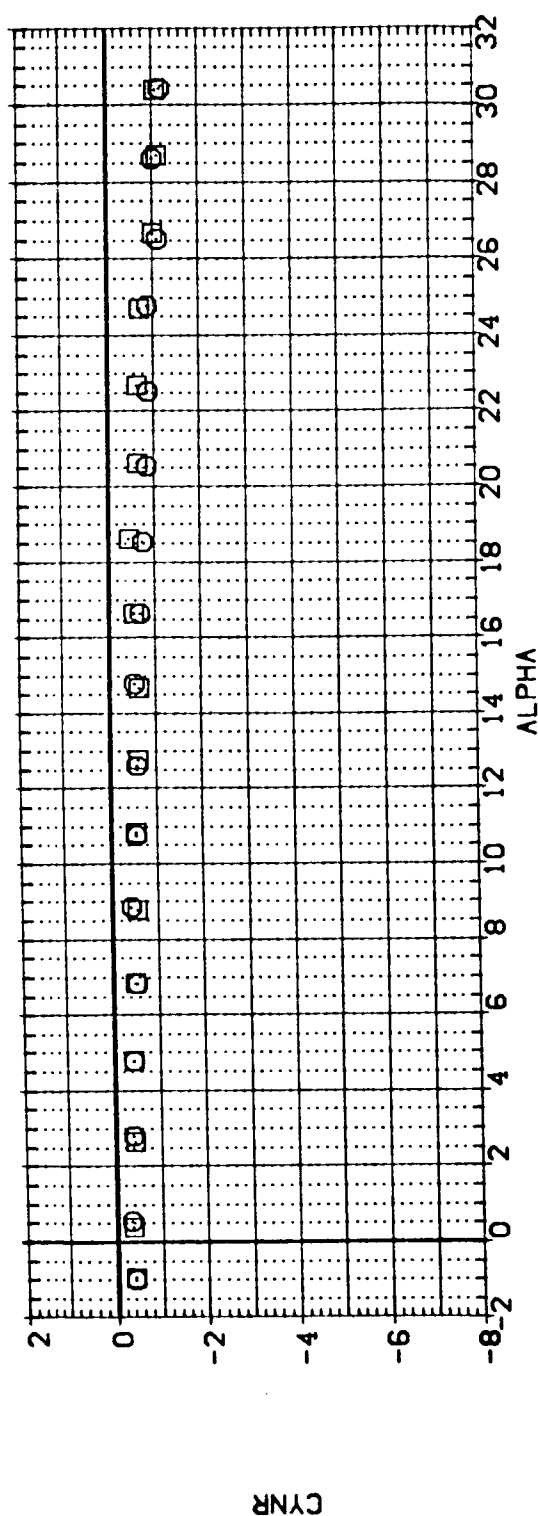


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW

(D)MACH = 3.96

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUDELIR

(RPGY03)      LA-14; ROCKWELL DRB 0898 V/MOD. NOSE (BVM )      1.000      .000      40.000

(RPGY04)      LA-14; ROCKWELL DRB 0898 V/MOD. NOSE (BVM )      2.000      .000      40.000

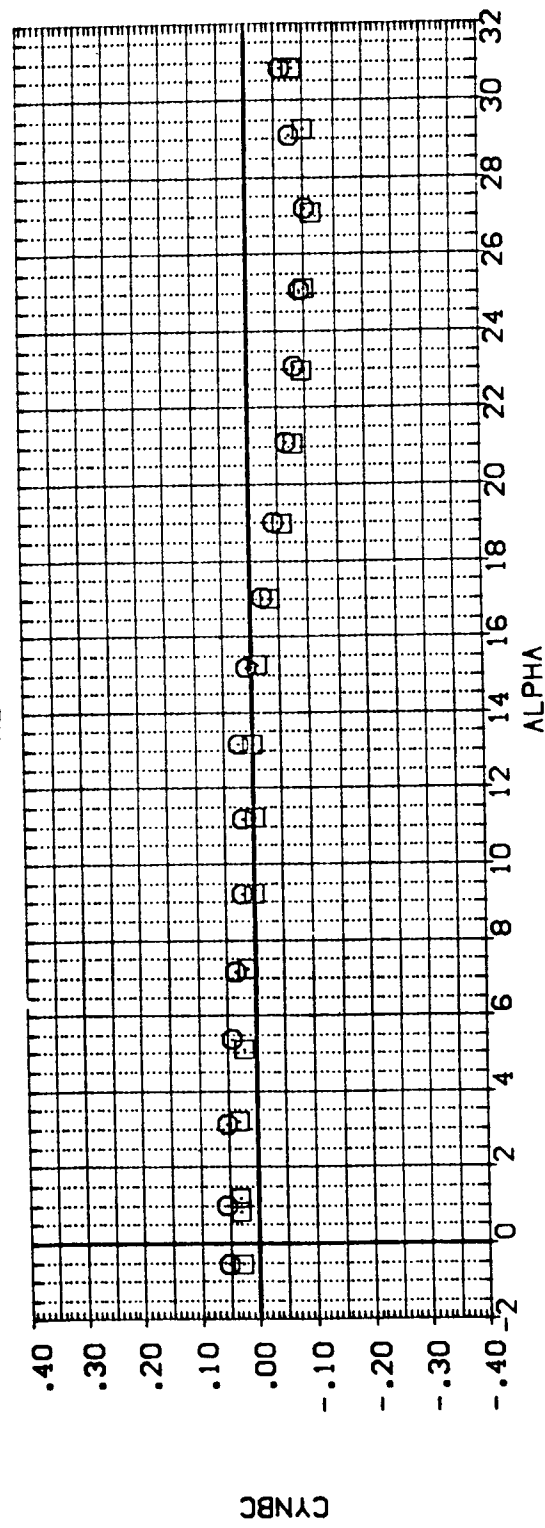
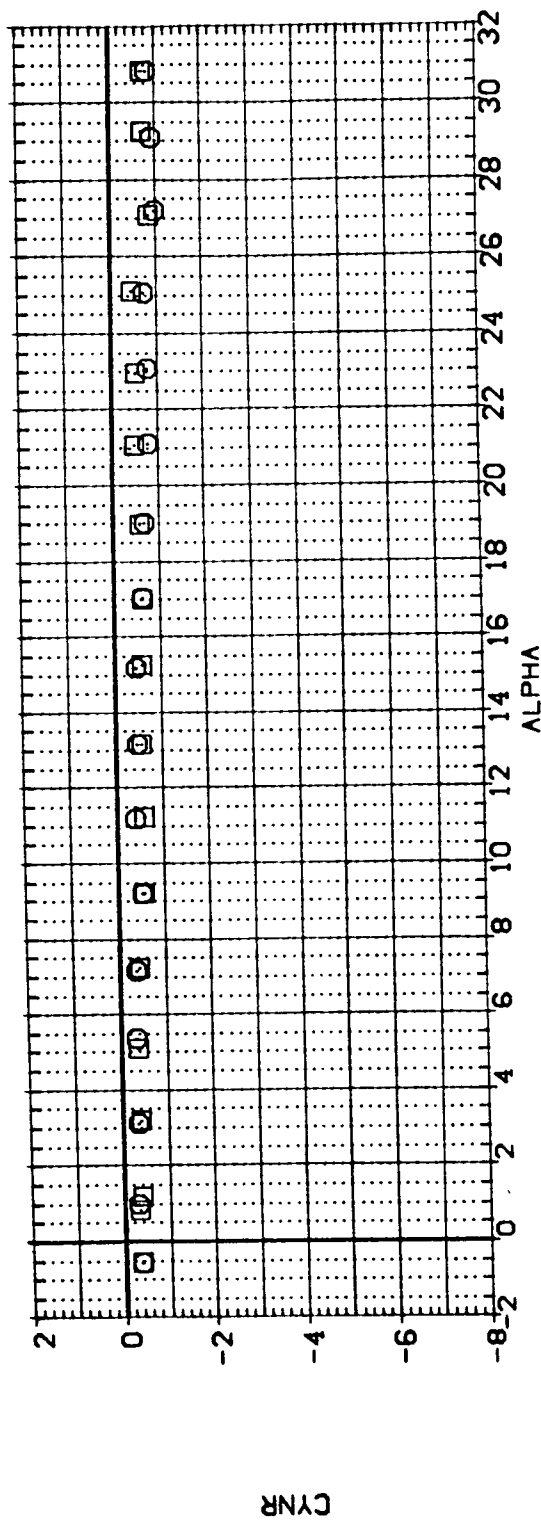


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW

(E)MACH = 4.63

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR

(RPGY03)    LA-14, ROCKVELL ORB 0898 V/MOD, NOSE (BVVM)    1.000    .000    40.000

(RPGY04)    LA-14, ROCKVELL ORB 0899 V/MOD, NOSE (BVVM)    2.000    .000    40.000

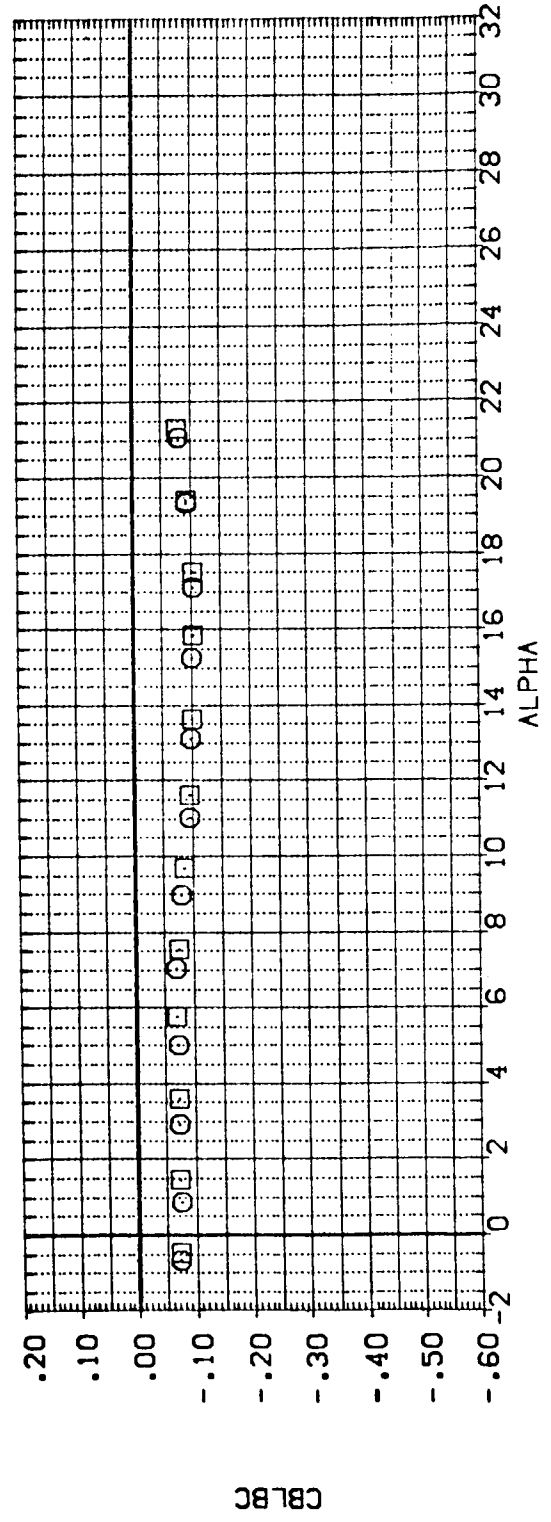
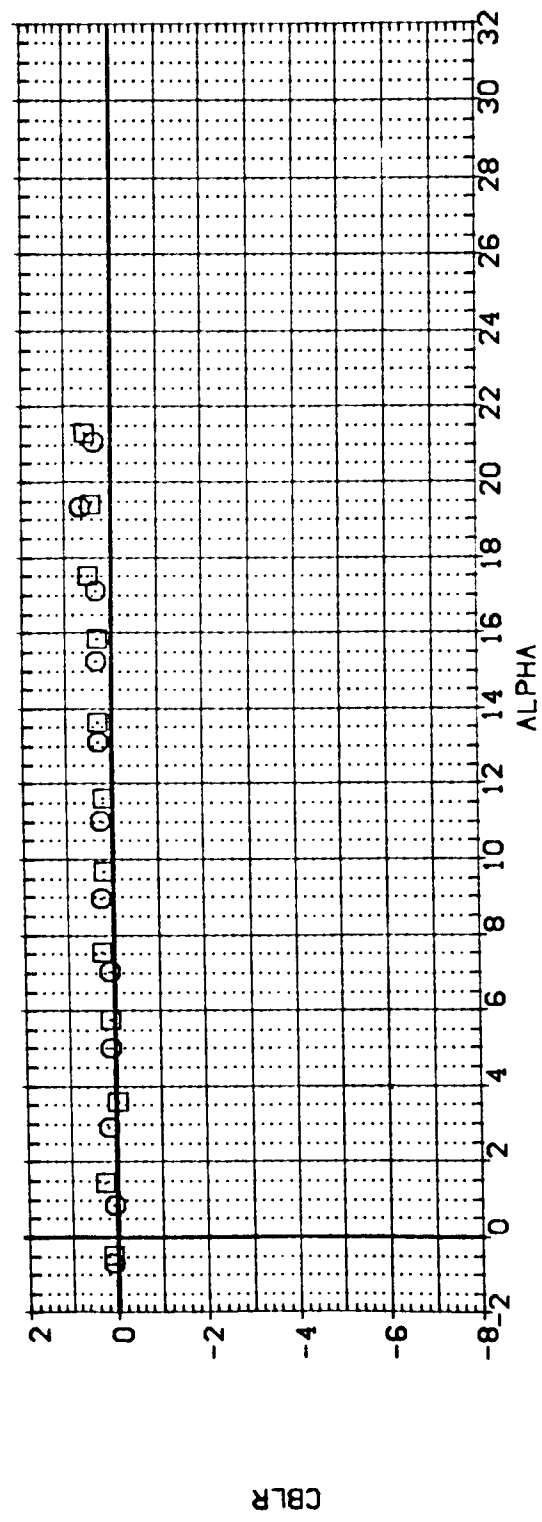


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW

(M)MACH = 1.90

PAGE 18

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR

[RPGY03]    LA-14, ROCKVELL CRB 0898 V/H00, NOSE (BVM) }    1.000    .000    40.000

[RPGY04]    LA-14, ROCKVELL CRB 0898 V/H00, NOSE (BVM) }    2.000    .000    40.000

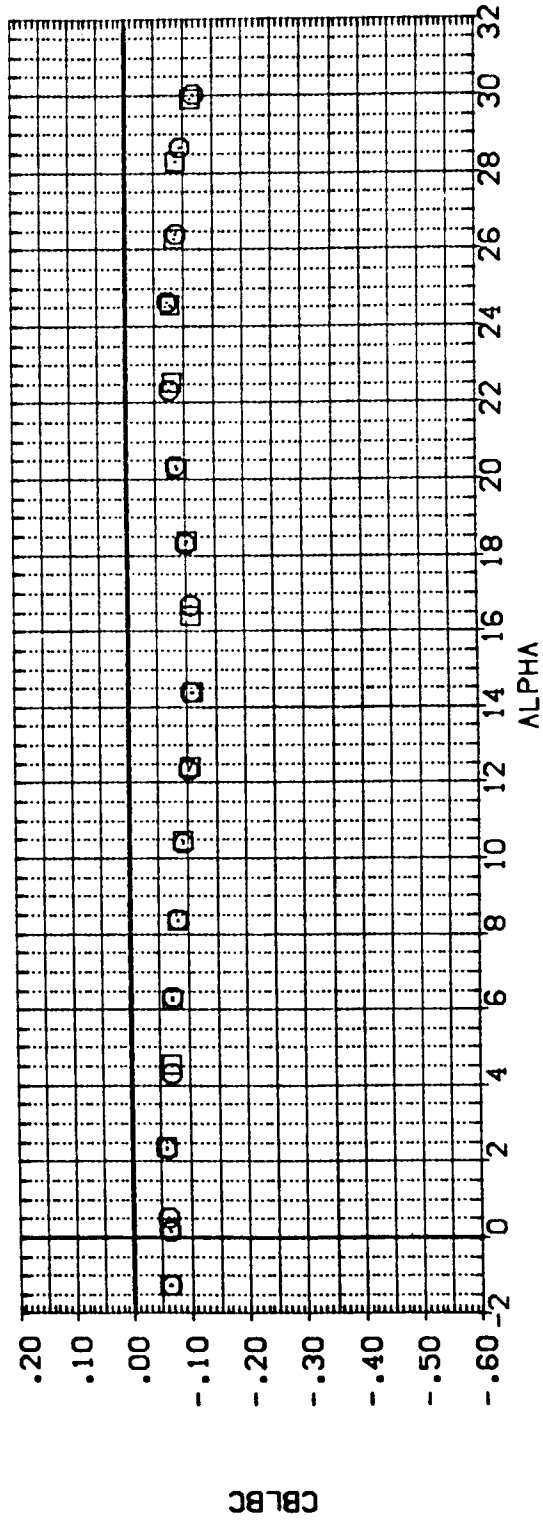
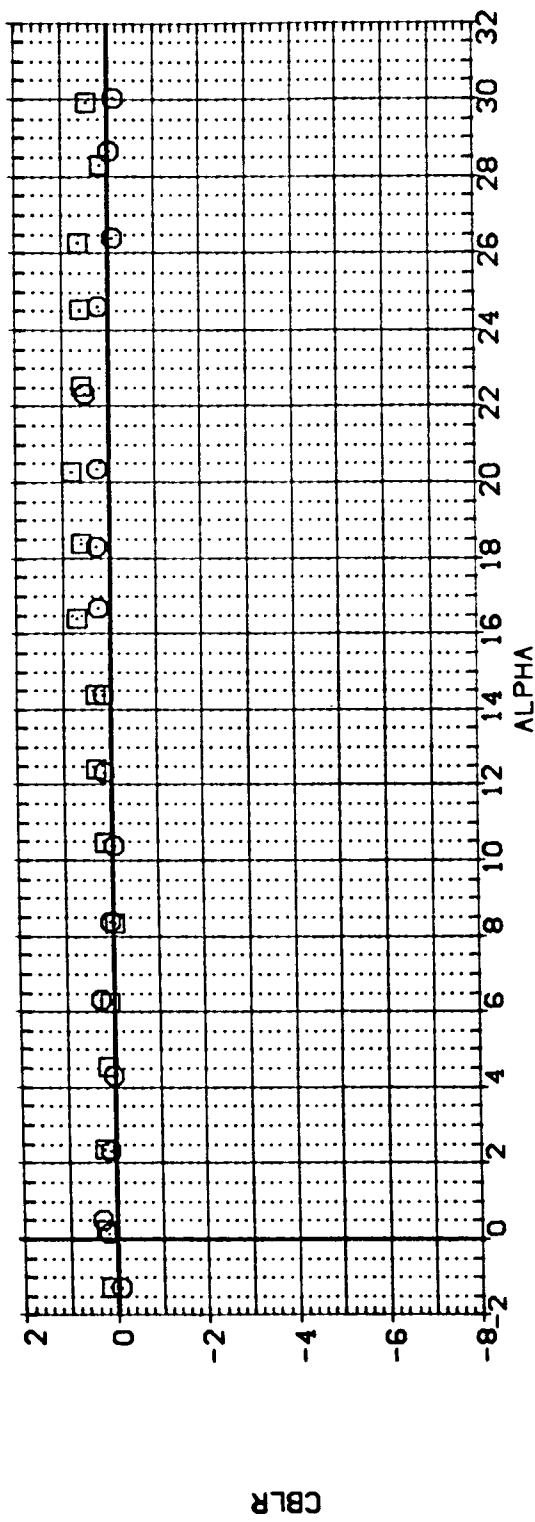


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW

(B)MACH = 2.36

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR

(RPGY03)    LA-14; ROCKWELL DR8 D898 V/MOD. NOSE (BVMH) }    1.000    .000    40.000

(RPGY04)    LA-14; ROCKWELL DR8 D898 V/MOD. NOSE (BVMH) }    2.000    .000    40.000

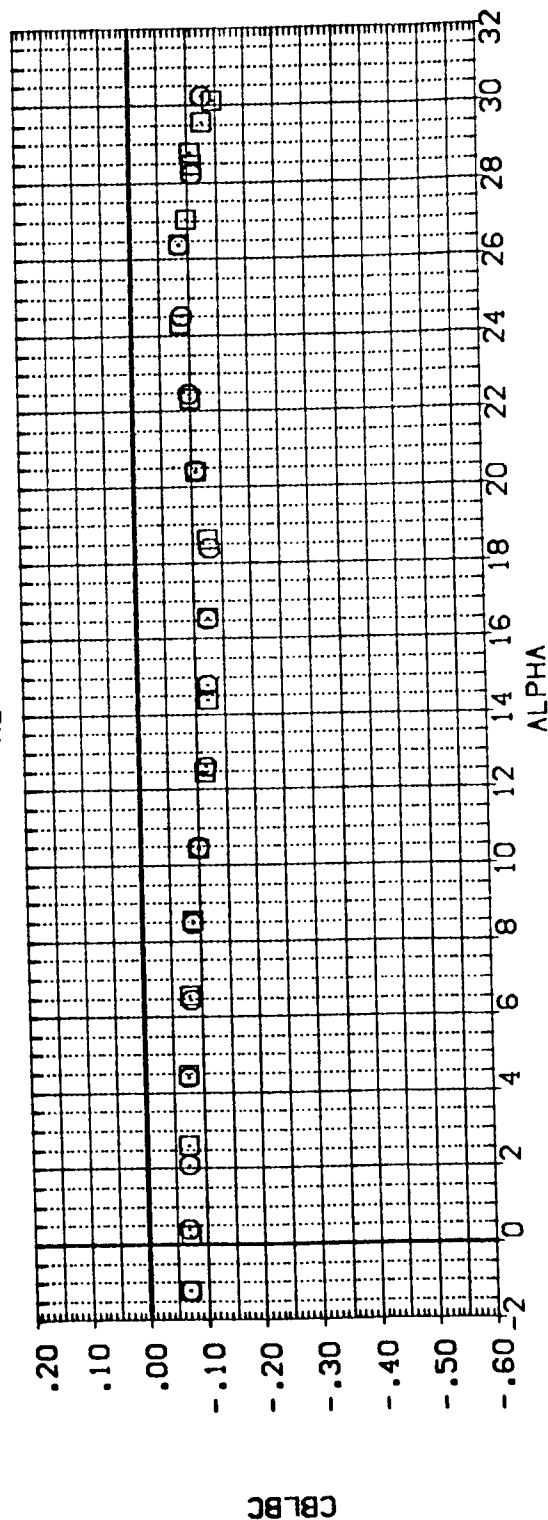
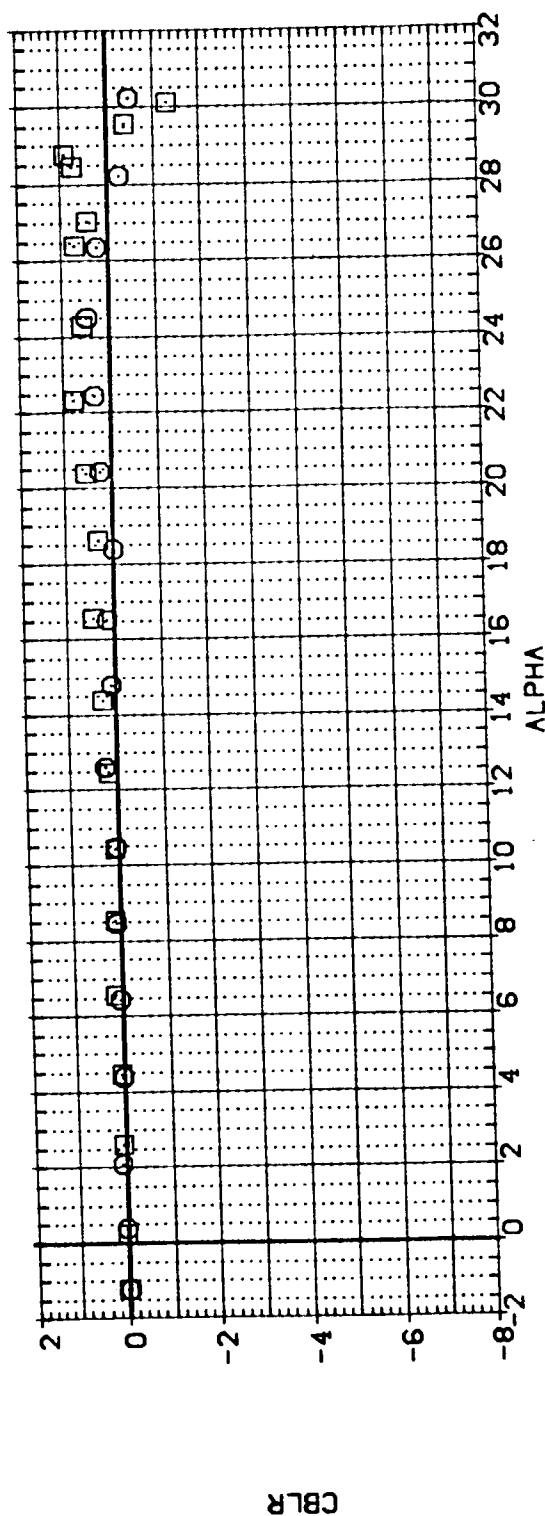


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW

(C)MACH = 2.86



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 {RPGV03}    LA-14: ROCKWELL CRB 0898 V/H00, NOSE (BVM)    1.000    .000    40.000  
 {RPGV04}    LA-14: ROCKWELL CRB 0898 V/H00, NOSE (BVM)    2.000    .000    40.000

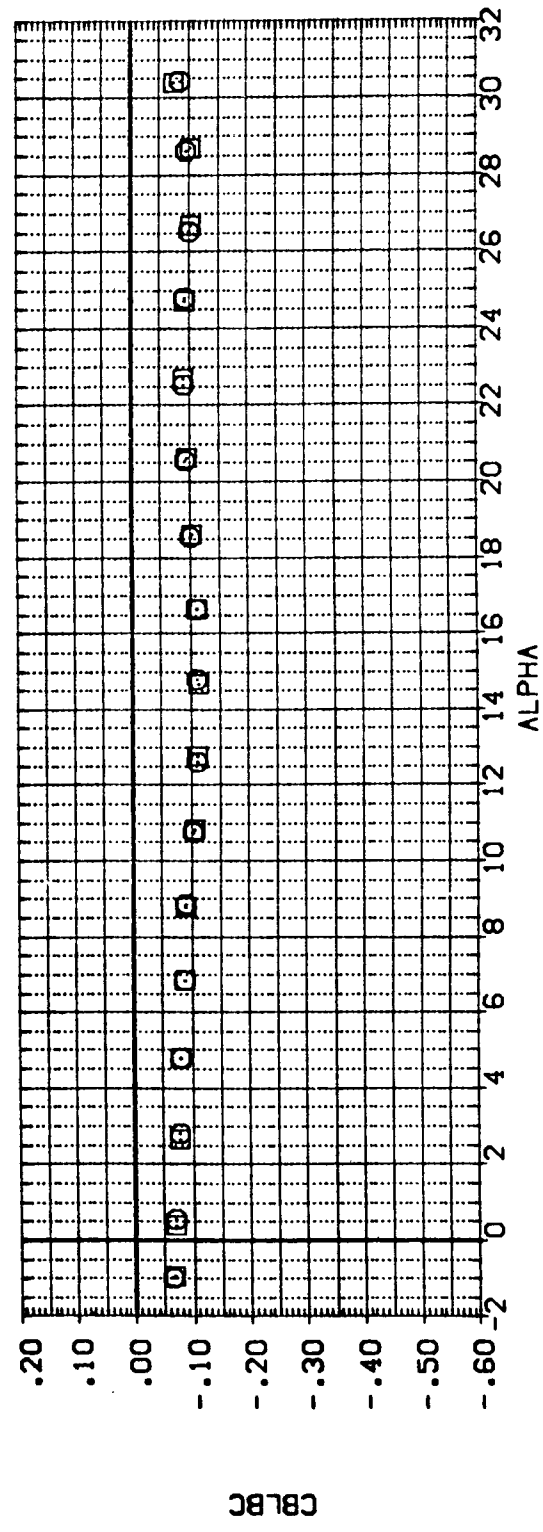
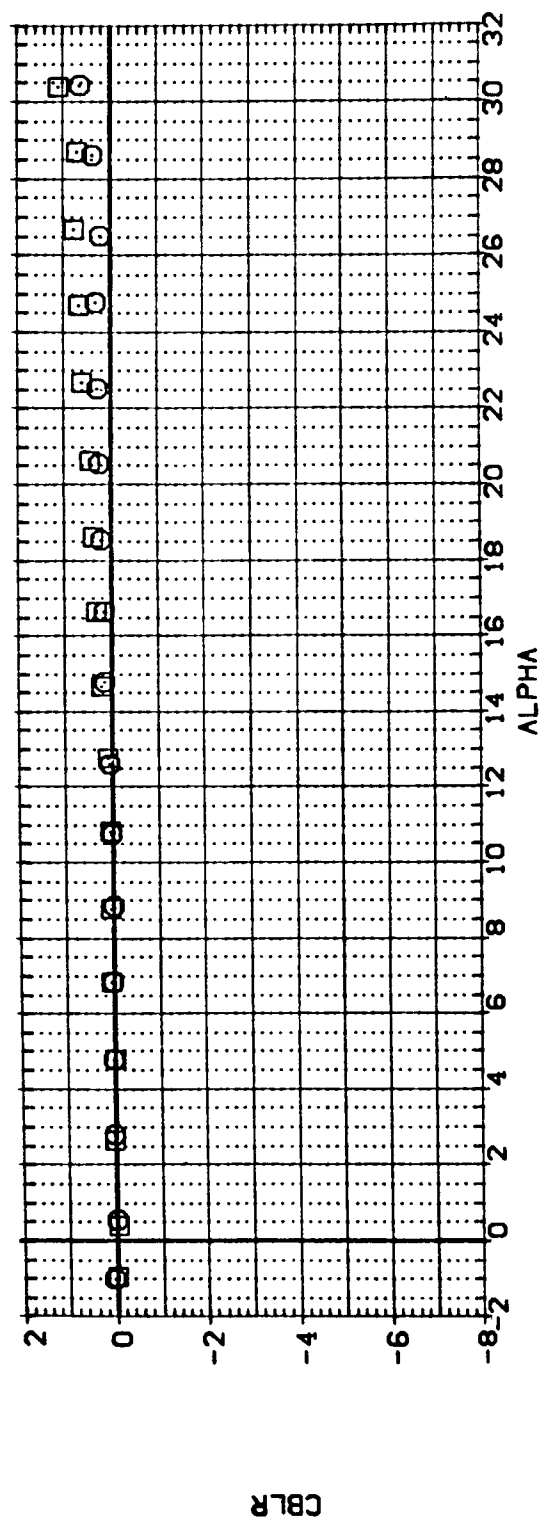


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW  
 (D)MACH = 3.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	RUDEL R
(RPGY03)	LA-14, ROCKWELL ORB D898 V/MOD. NOSE (BVM)	1.000	.000	40.000
(RPGY04)	LA-14, ROCKWELL ORB D898 V/MOD. NOSE (BVM)	2.000	.000	40.000

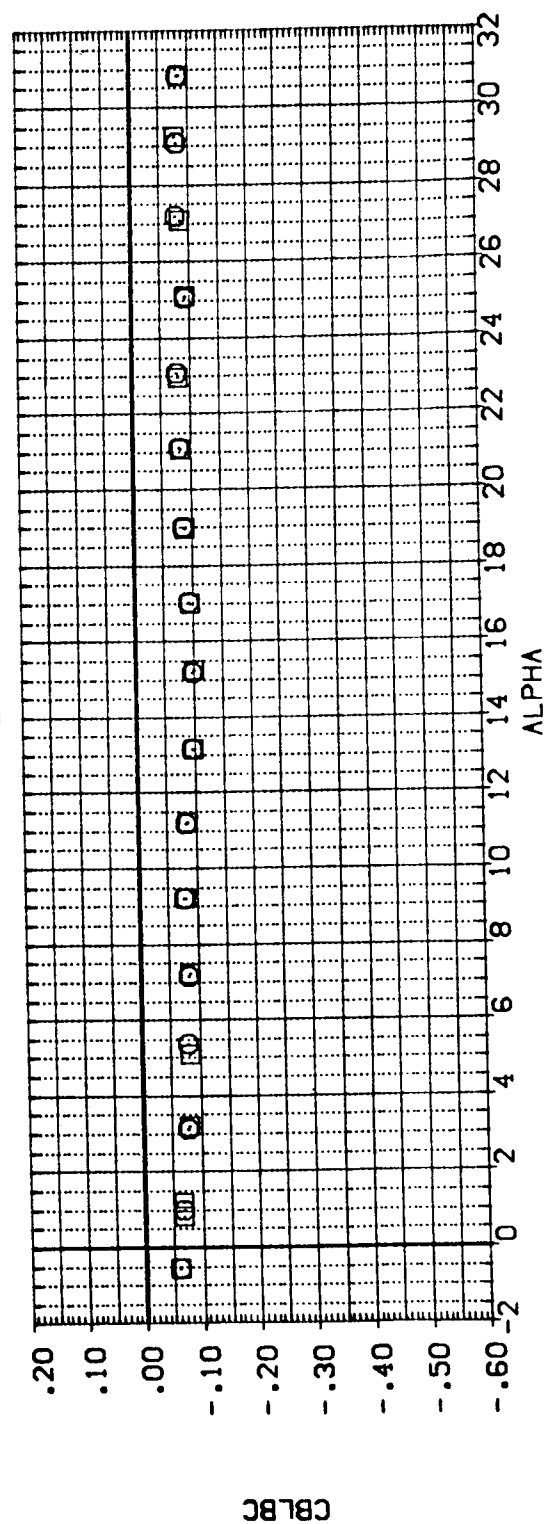
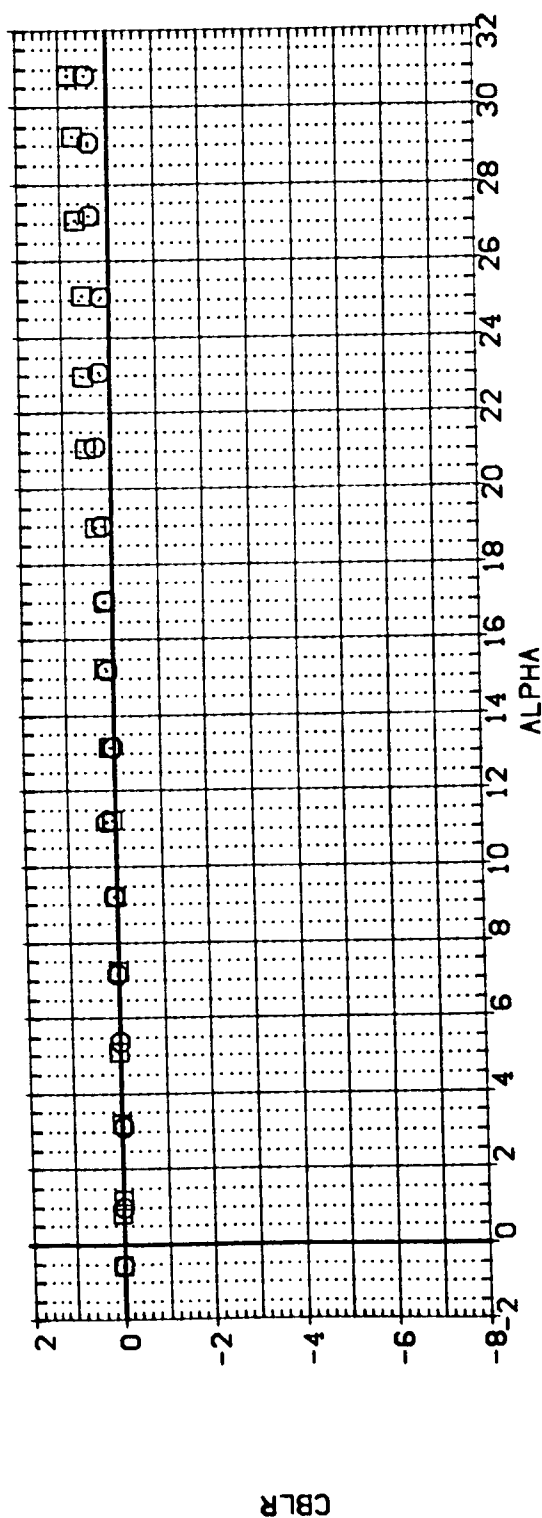


FIGURE 5. EFFECT OF C. G. LOCATION ON DYNAMIC STABILITY PARAMETERS IN YAW

(C)MACH = 4.63

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 (RPGP01)    DATA NOT AVAILABLE    1.000    .000    40.000  
 (RPGP03)    LA-14, ROCKWELL ORB 0898 V/HOO, NOSE (BVMH)    1.000    .000    40.000

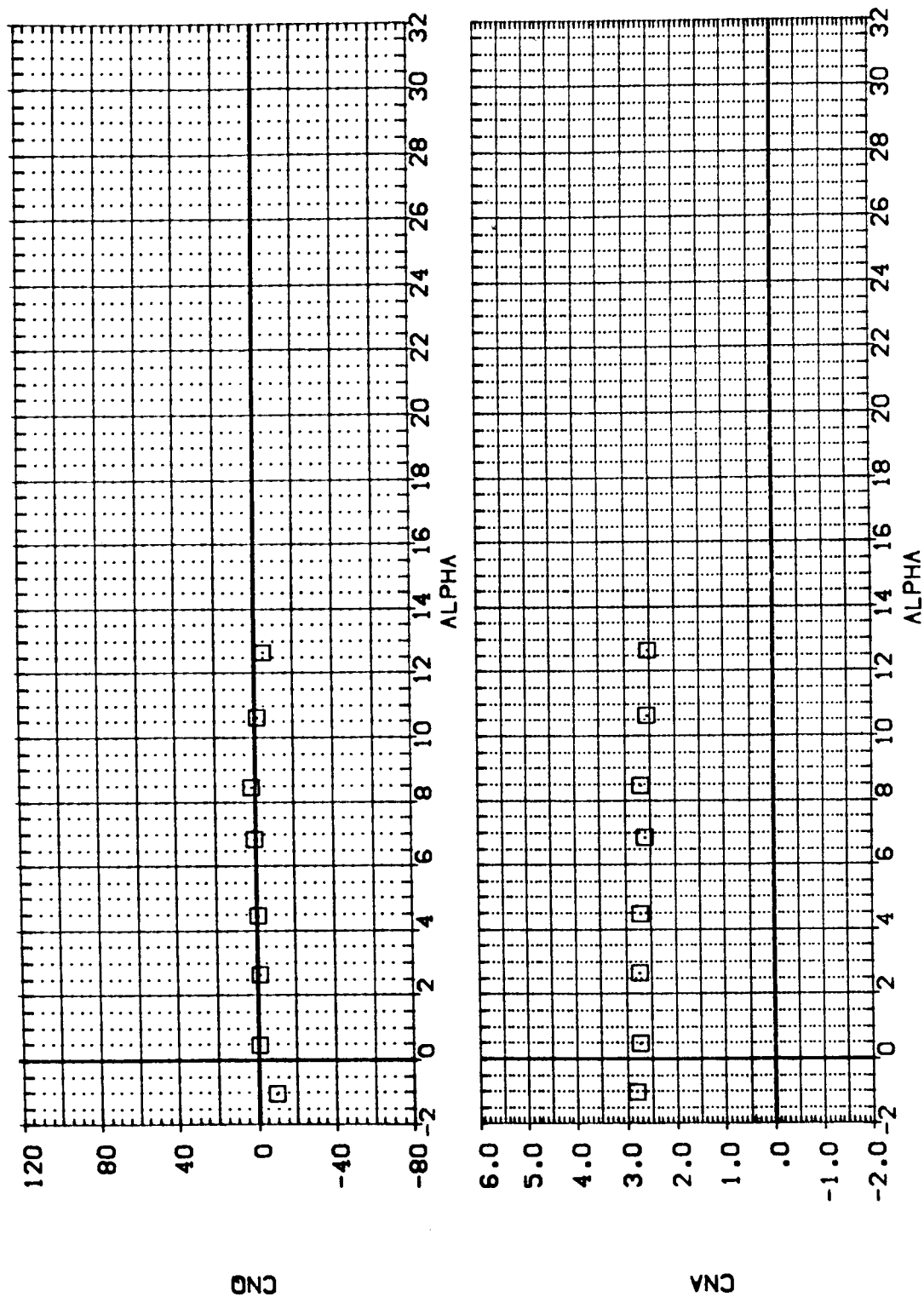


FIGURE 6. EFFECT OF QMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

(A)MACH = 1.60

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RPGP01)    DATA NOT AVAILABLE  
 (RPGP03)    LA-14, ROCKWELL CRB 0898 V/MOD, NOSE (BVM)

CG-LOC    ELEVTR    RUOFLLR  
 1.000    .000    40.000  
 1.000    .000    40.000

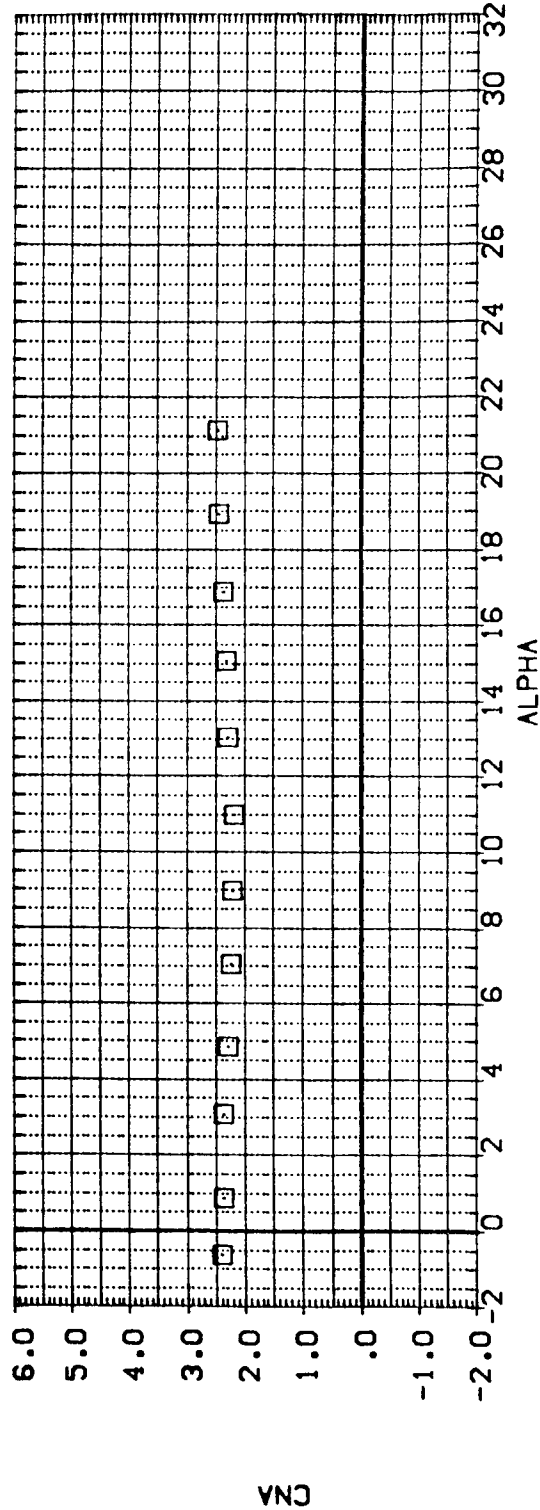
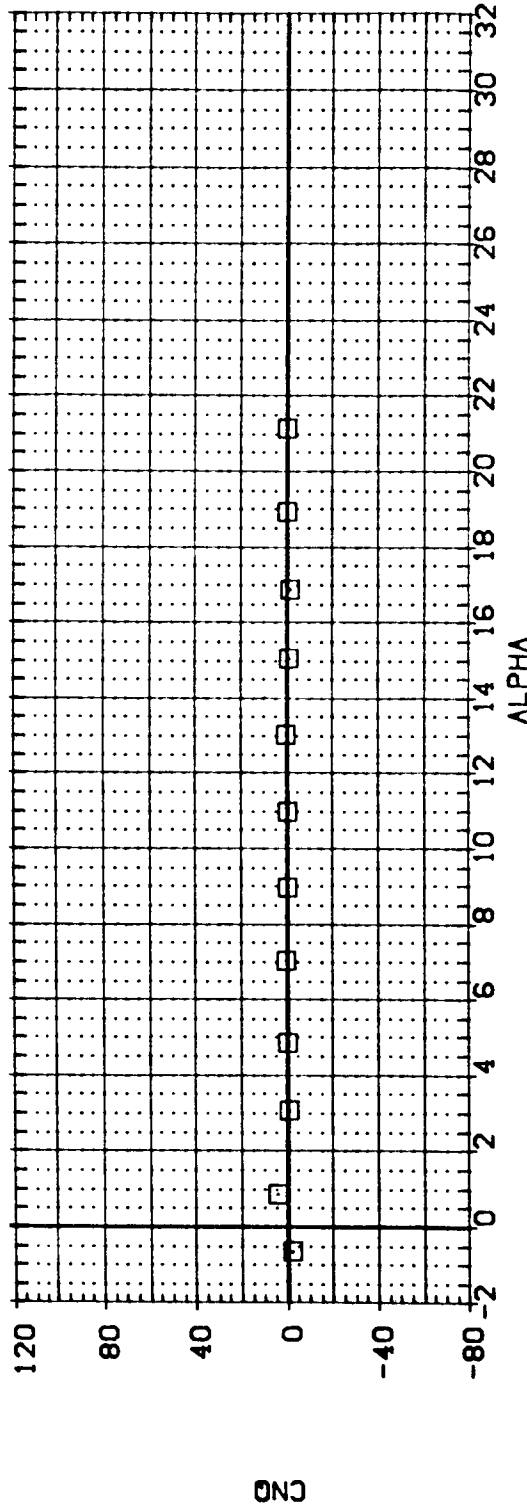


FIGURE 6. EFFECT OF CMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

(B)MACH = 1.90

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 (RPGP01)      LA-14: ROCKWELL DRB 0898 V/MOD: NOSE (BNV )      1.000      .000      40.000  
 (RPGP03)      LA-14: ROCKWELL DRB 0898 V/MOD: NOSE (BNVM )      1.000      .000      40.000

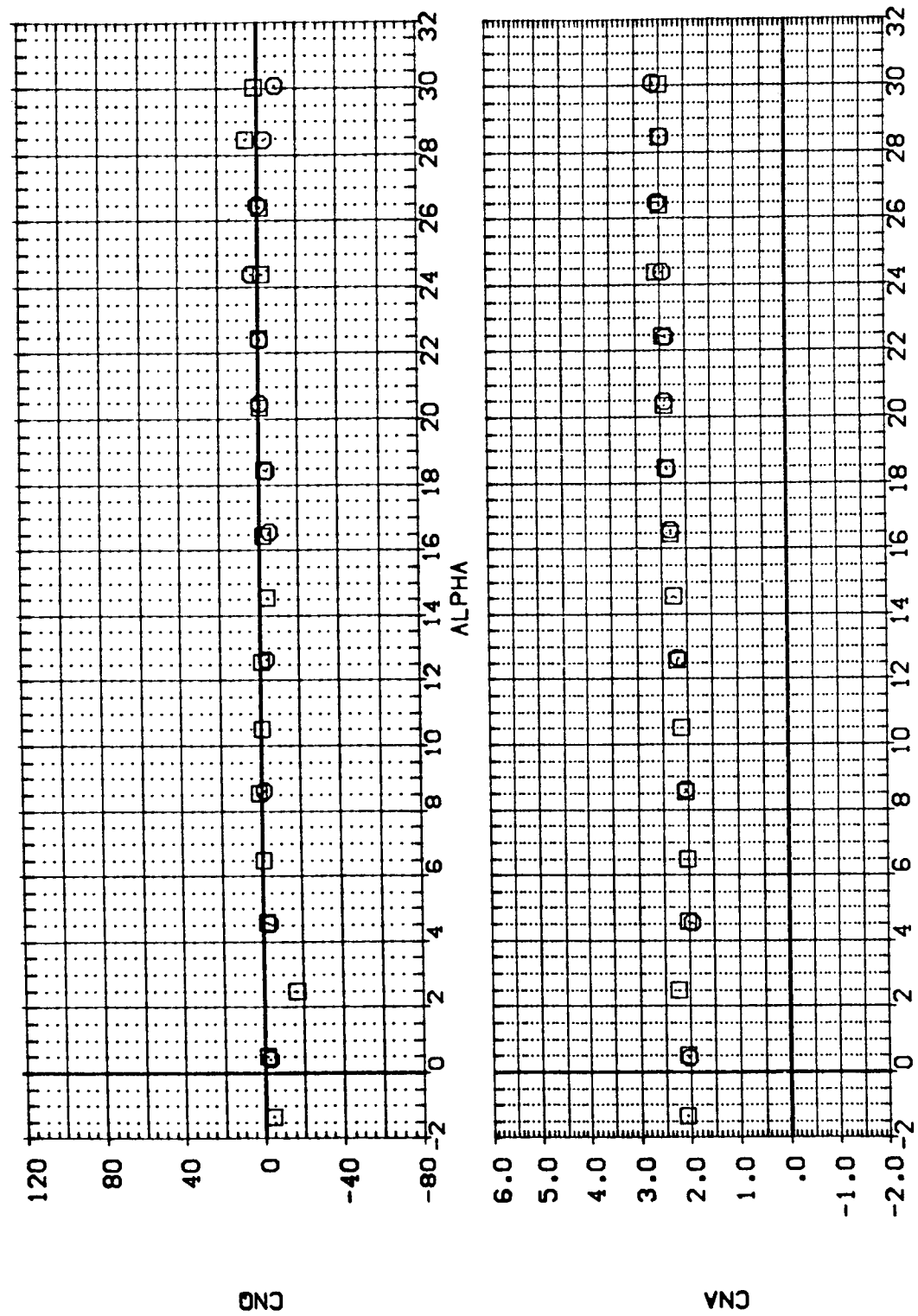


FIGURE 6. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

(C)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	RUOFLR
(RPGP01)	LA-14, ROCKWELL DRB 0958 V/MOD. NOSE (BVM )	1.000	.000	40.000
(RPGP03)	LA-14, ROCKWELL DRB 0958 V/MOD. NOSE (BVM )	1.000	.000	40.000

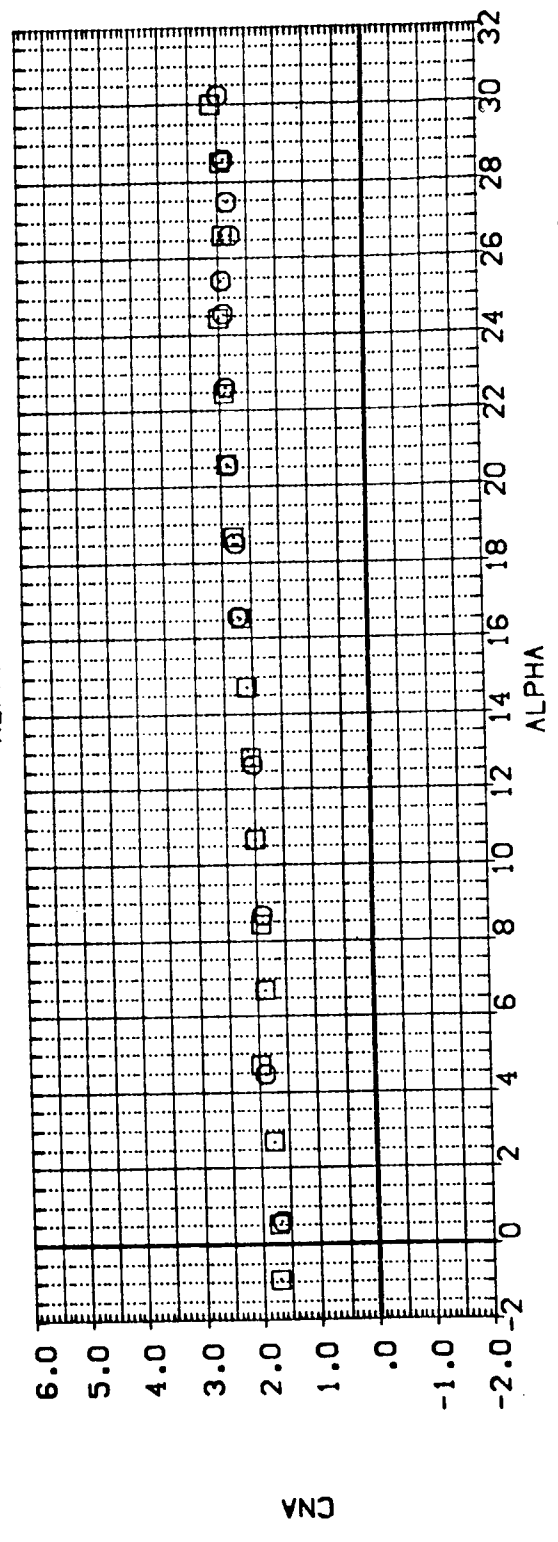
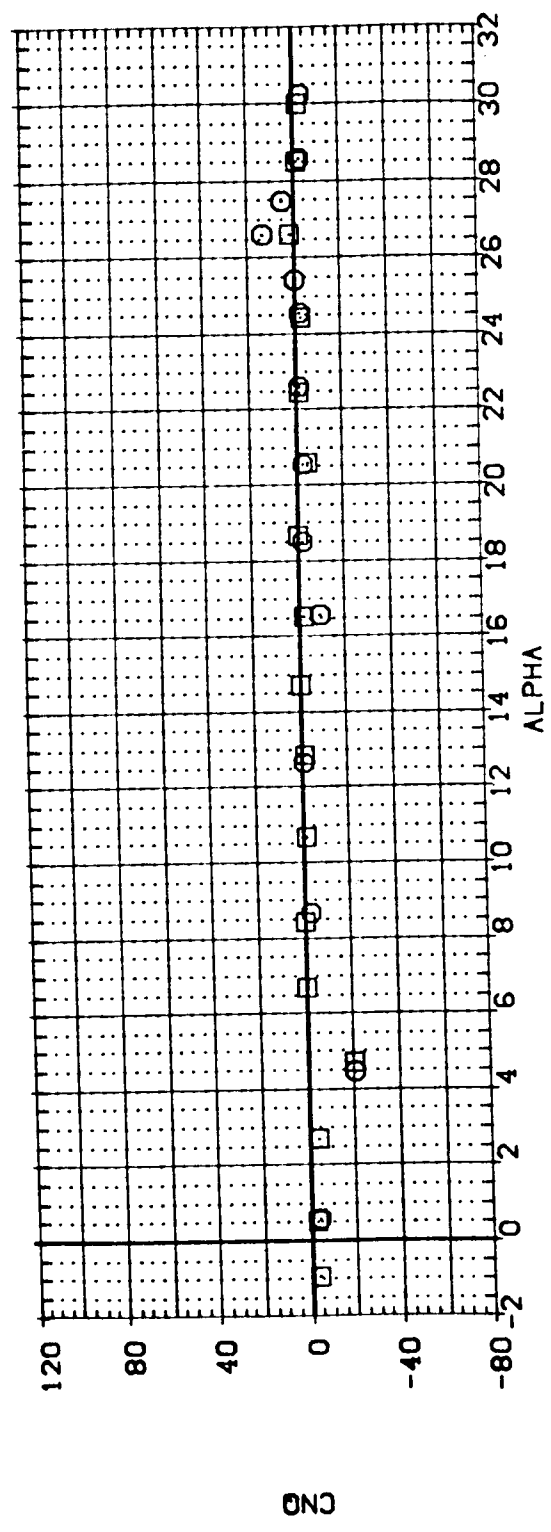


FIGURE 6. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 { RFGP01 }    LA-14, ROCKWELL ORB 0698 V/MOD, NOSE (BVM )    1.000    .000    40.000  
 { RFGP03 }    LA-14, ROCKWELL ORB 0698 V/MOD, NOSE (BVM )    1.000    .000    40.000

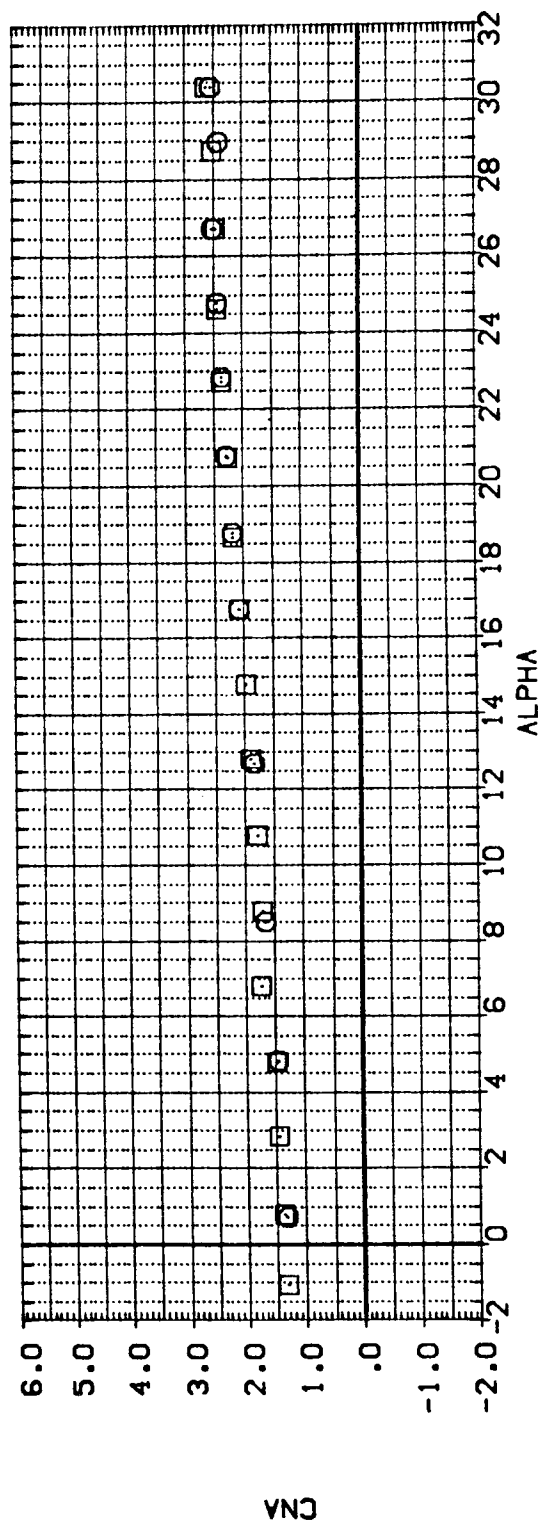
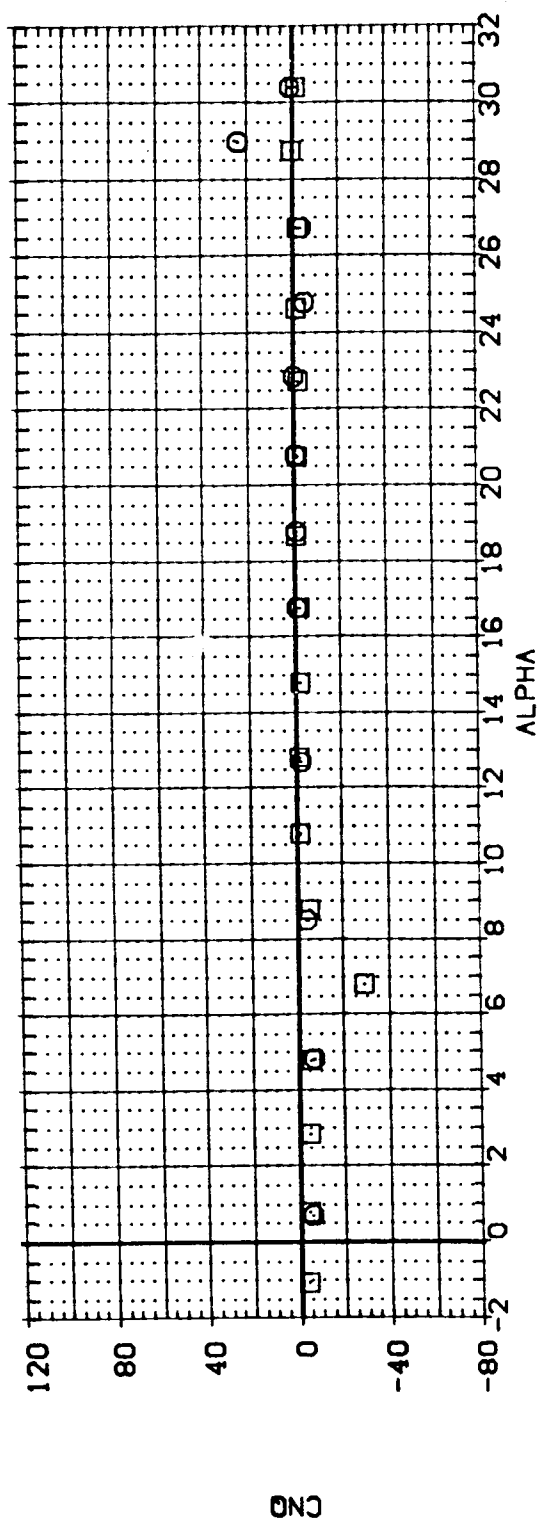


FIGURE 6. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

(E)MACH = 3.96

CG-LOC ELEVTR RUOFLR  
1.000 .000 40.000  
1.000 .000 40.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
LA-14: ROCKWELL ORB 0898 V/MCO. NOSE (BVM )  
LA-14: ROCKWELL ORB 0898 V/MCO. NOSE (BVM )

[RPGP01]  
[RPGP03]

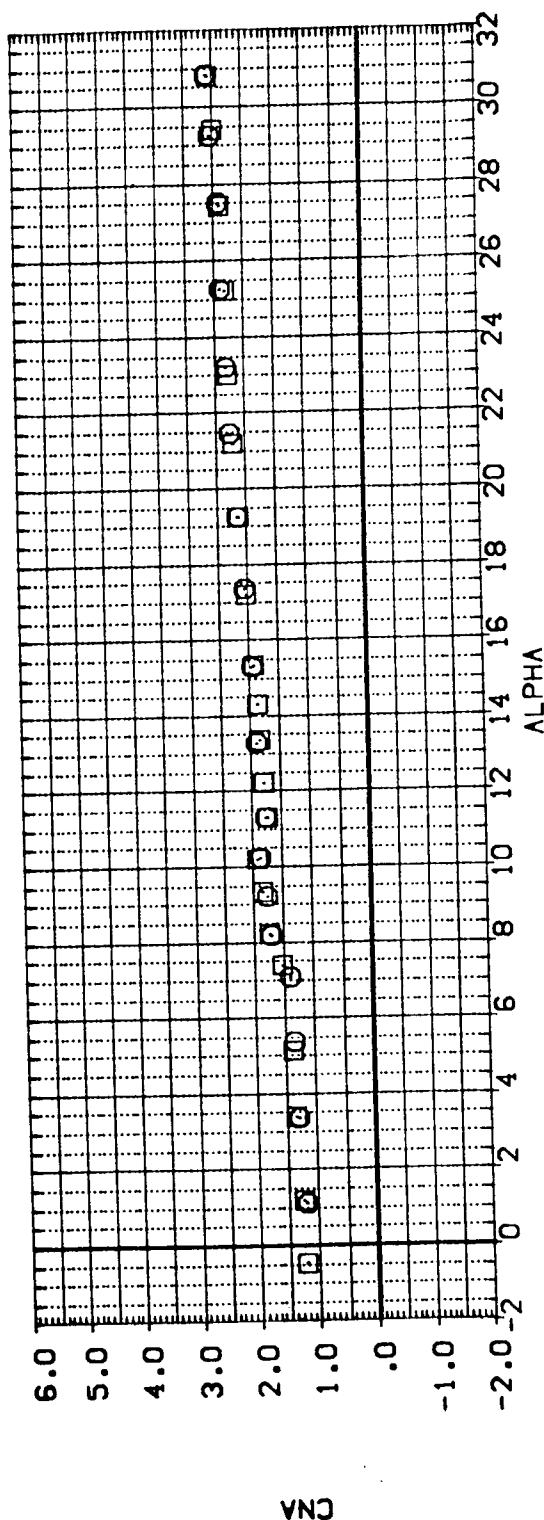
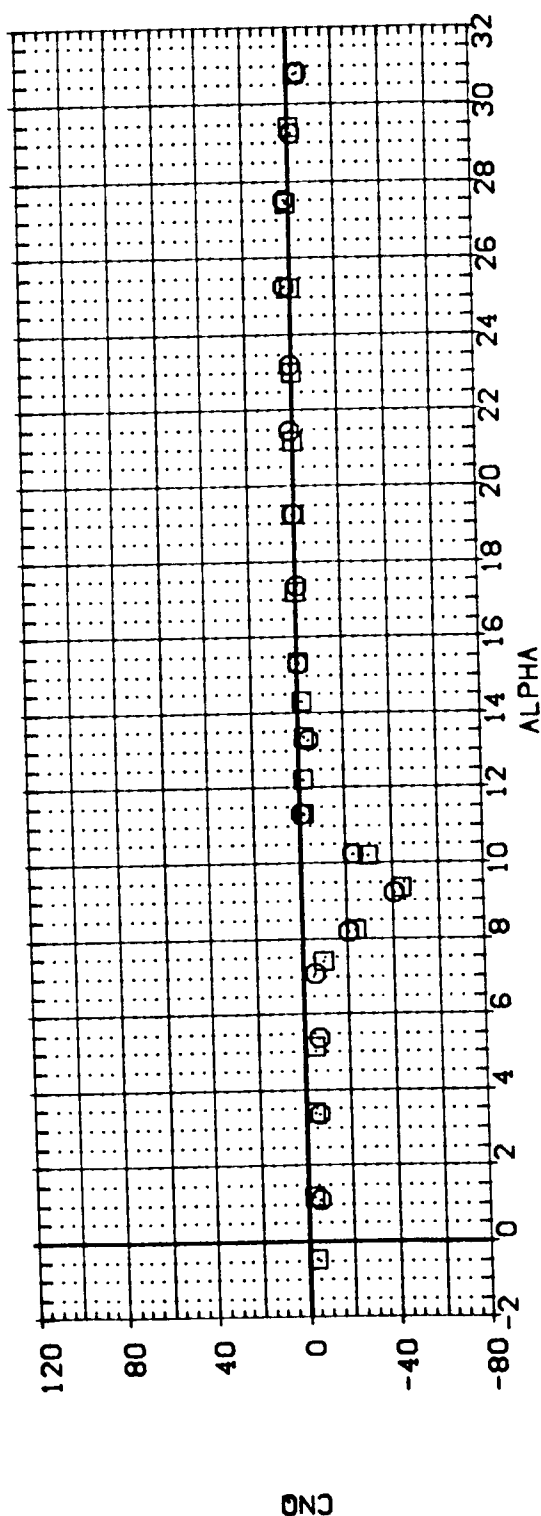


FIGURE 6. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

(F)MACH = 4.63



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUDELTR  
 (RPGP01)      DATA NOT AVAILABLE      1.000      .000      40.000  
 (RPGP03)      LA-14, ROCKWELL ORB 0898 V/MOD. NOSE (BVMV)      1.000      .000      40.000

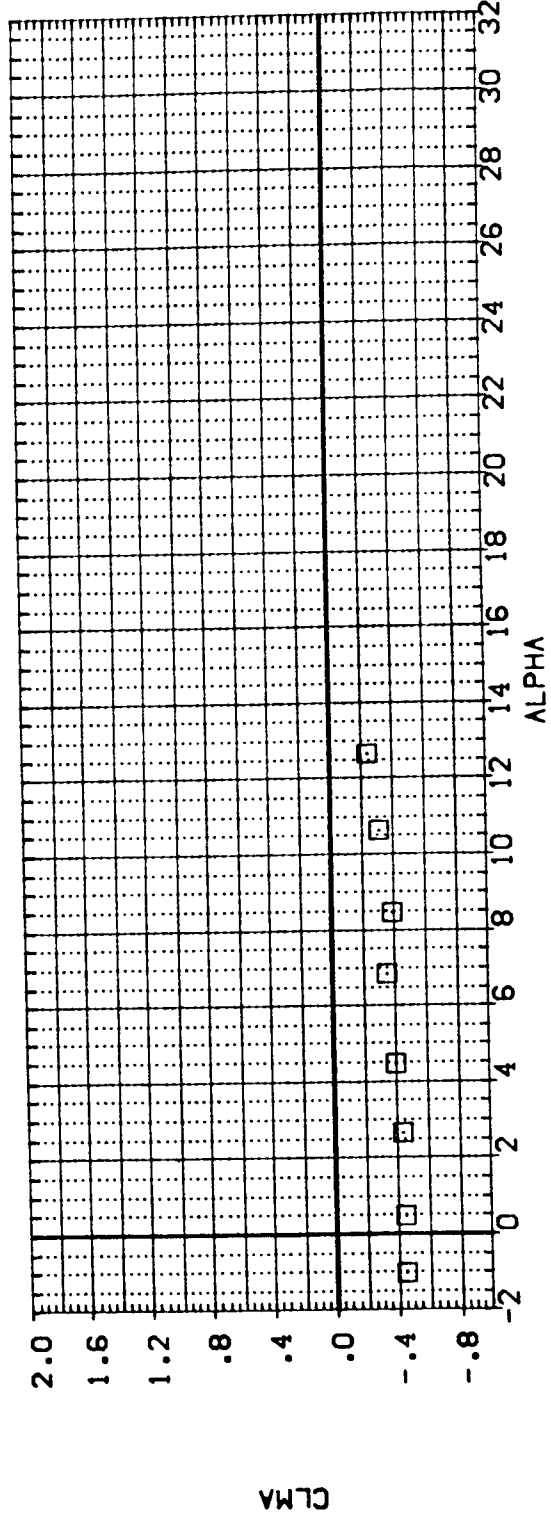
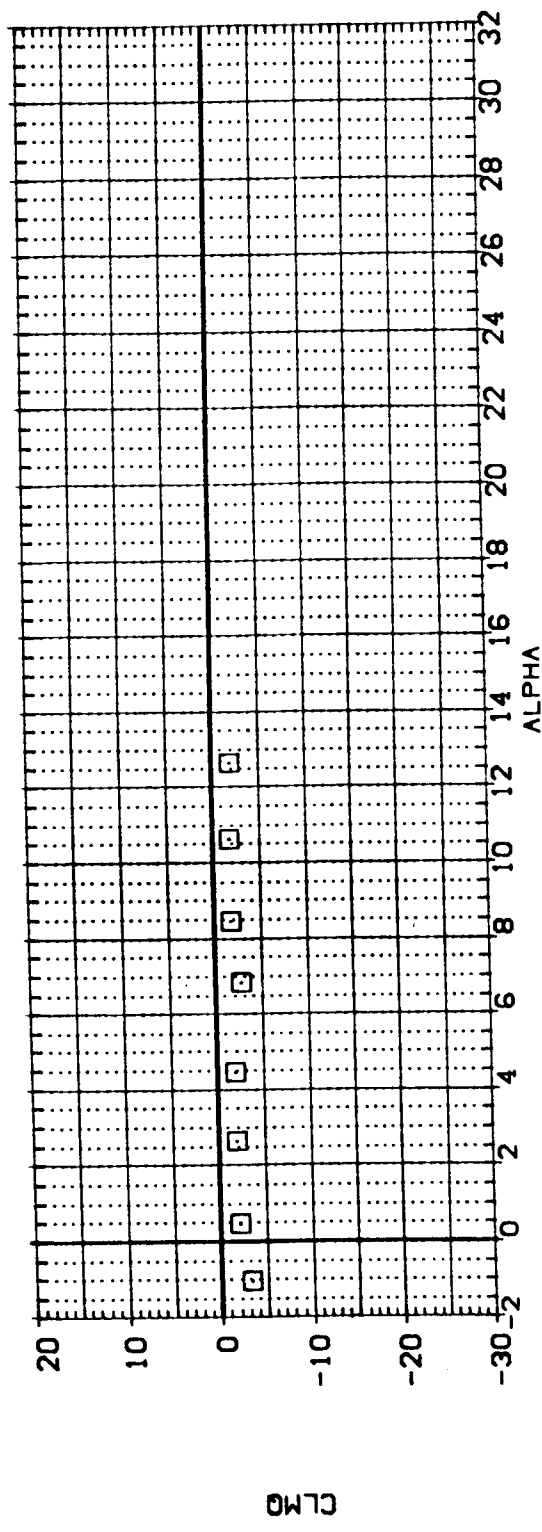


FIGURE 6. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RPGP01) DATA NOT AVAILABLE  
(RPGP03) LA-14, ROCKWELL D8B D898 V/MOD, NOSE (BVVM)

CG-LOC ELEVTR RUOFLR  
1.000 .000 40.000  
1.000 .000 40.000

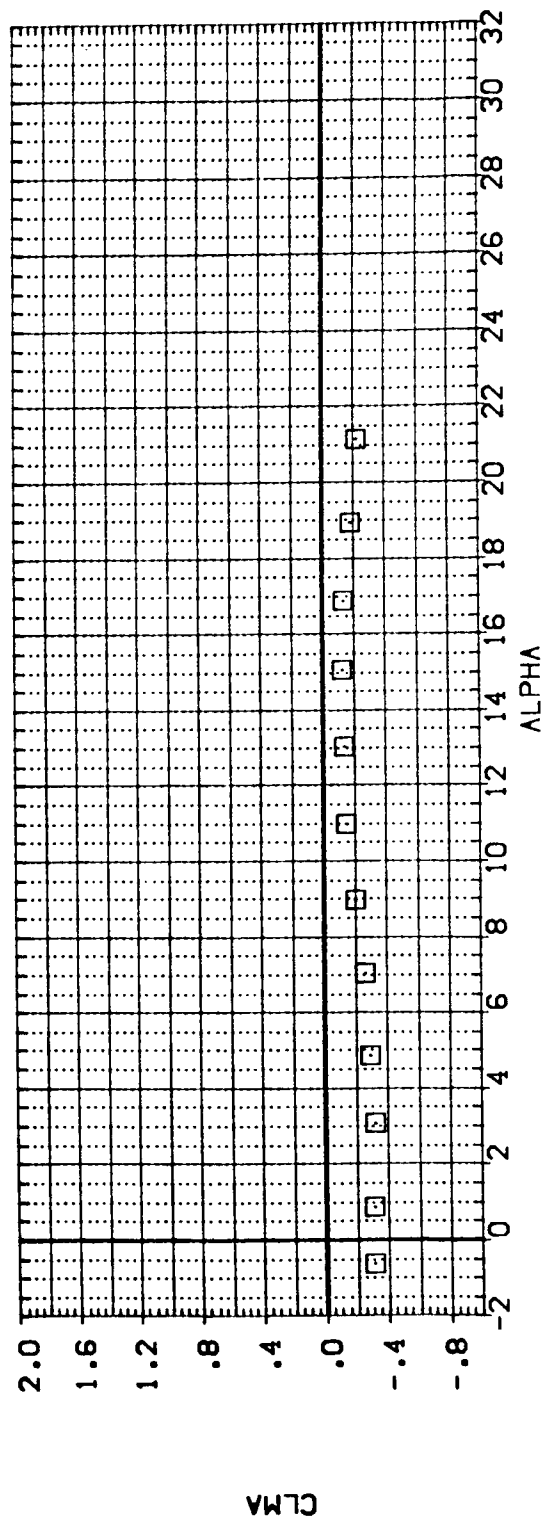
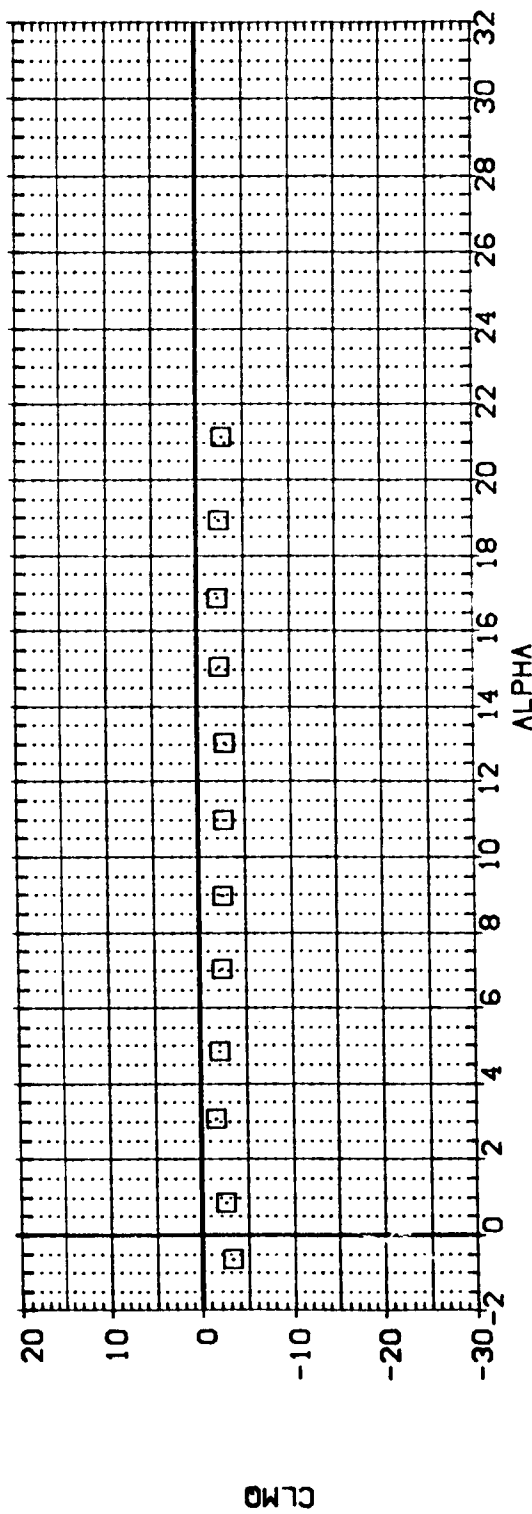


FIGURE 6. EFFECT OF CMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

(B)MACH = 1.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 {RPGP01}    LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BVM )    1.000    .000    40.000  
 {RPGP03}    LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BVMH )    1.000    .000    40.000

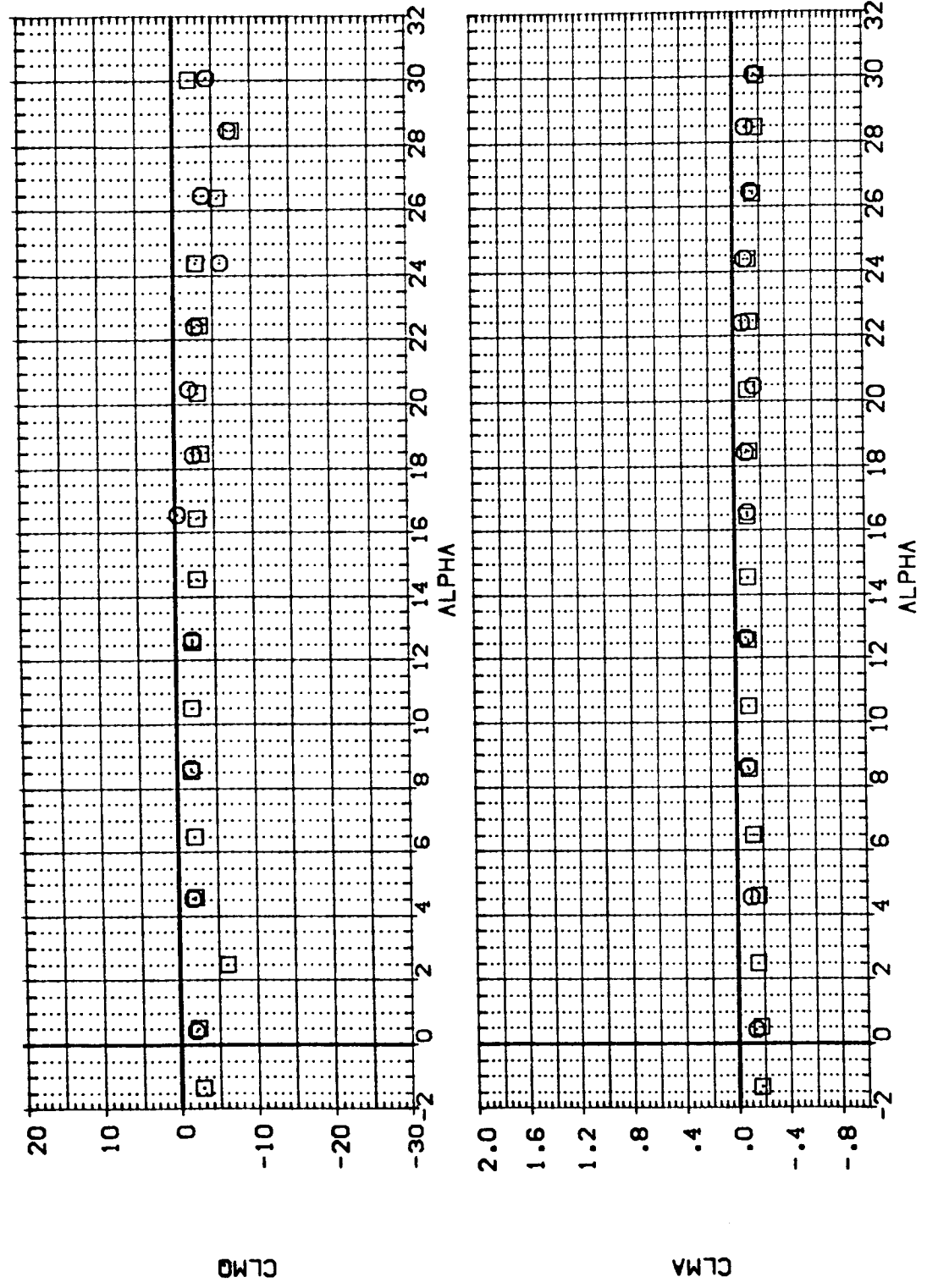


FIGURE 6. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

DATA SET SYMBOL: [RPGP01] [RPGP03] CONFIGURATION DESCRIPTION: LA-14; ROCKWELL ORB 0898 V/HOO; NOSE (BVM) LA-14; ROCKWELL ORB 0898 V/HOO; NOSE (BVM) CG-LOC: 1.000 1.000 ELEVTR: .000 .000 RUDELIR: 40.000 40.000

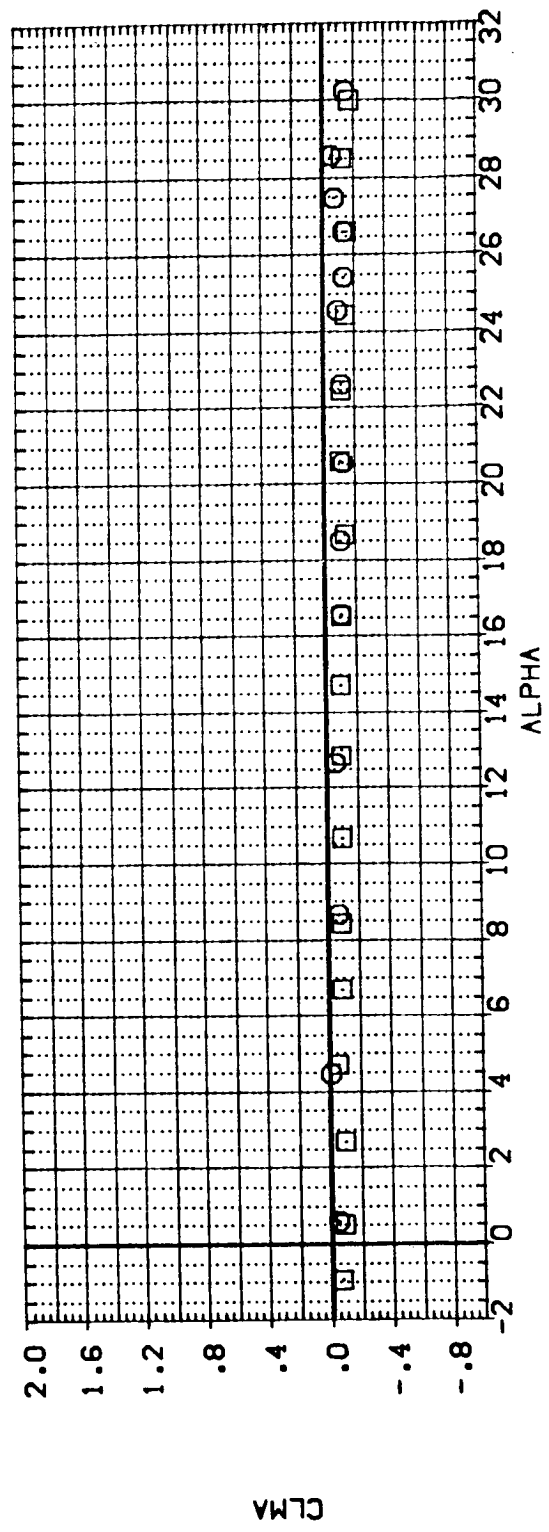
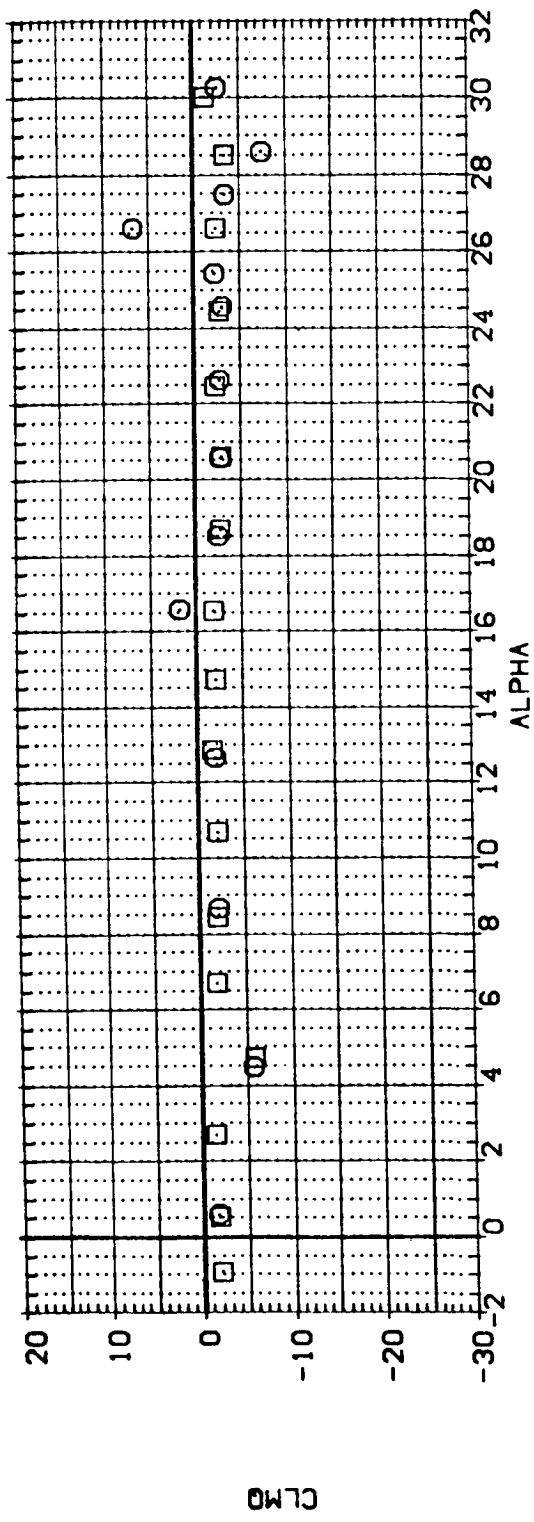


FIGURE 6. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

(O)MACH = 2.86

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 (RPGP01)      LA-14, ROCKWELL DRB 0898 V/MOD, NOSE (BVM )      1.000      .000      40.000  
 (RPGP03)      LA-14, ROCKWELL DRB 0898 V/MOD, NOSE (BVM )      1.000      .000      40.000

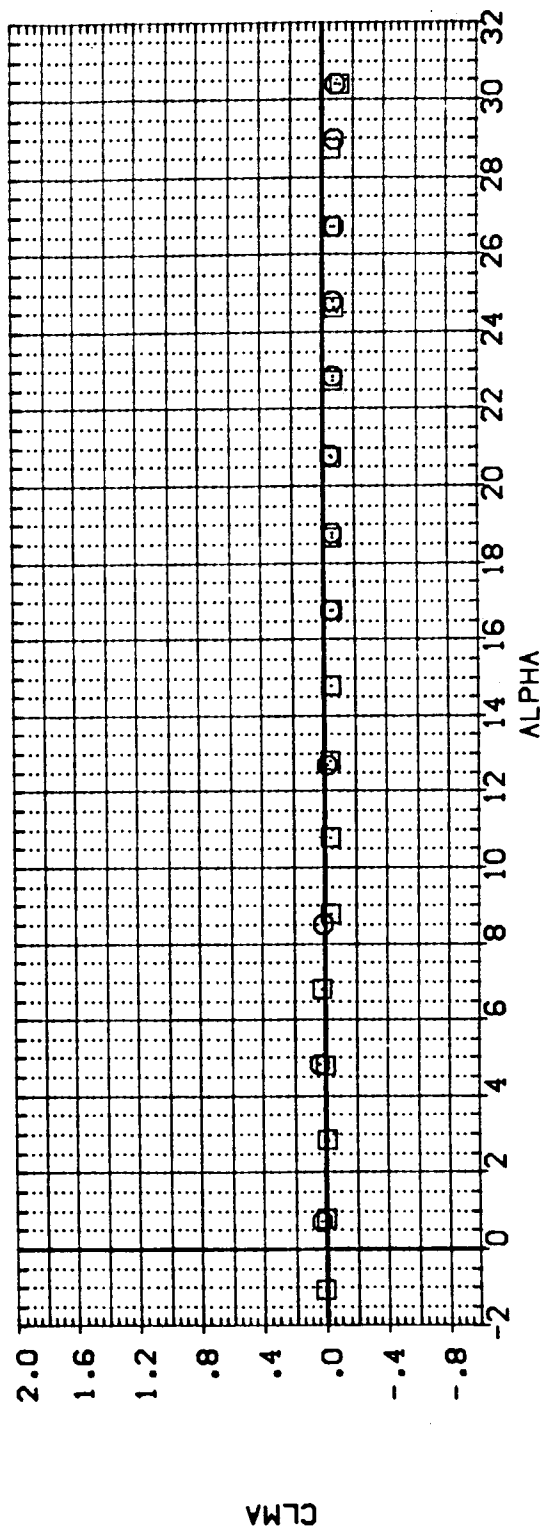
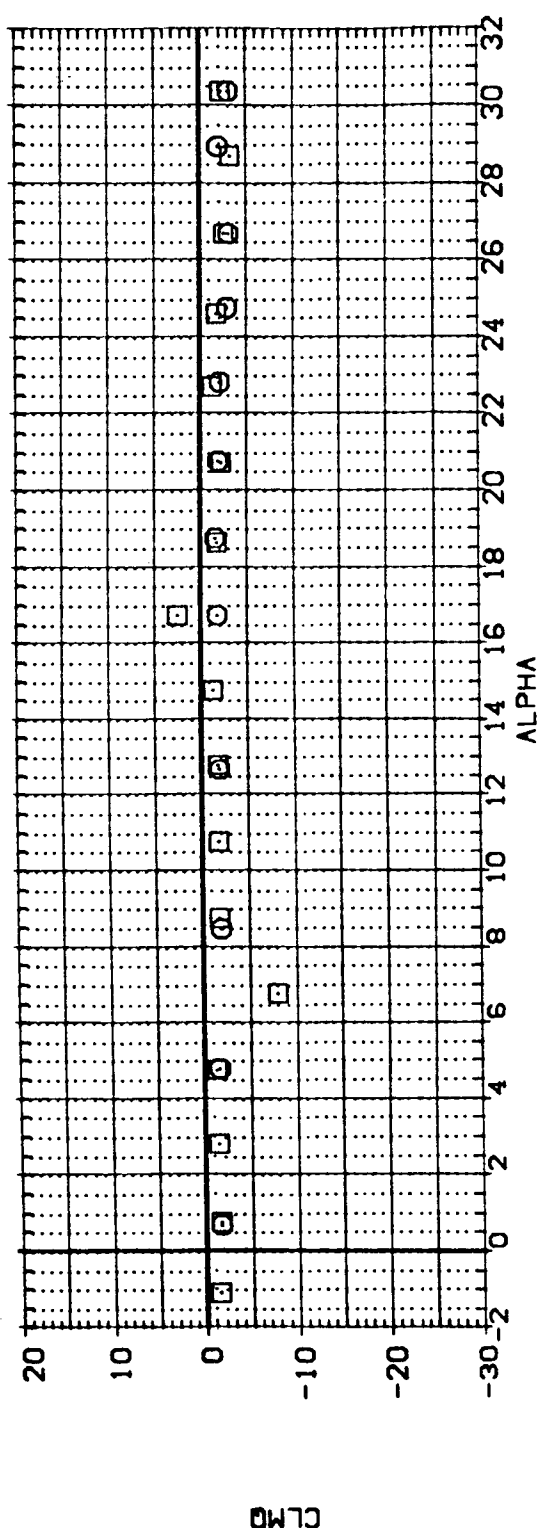


FIGURE 6. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

(E)MACH = 3.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	RUDFLR
(RPGP01)	LA-14, ROCKWELL ORB 0898 V/MOD.	1.000	.000	40.000
(RPGP03)	LA-14, ROCKWELL ORB 0898 V/MOD. NOSE (BVM)	1.000	.000	40.000

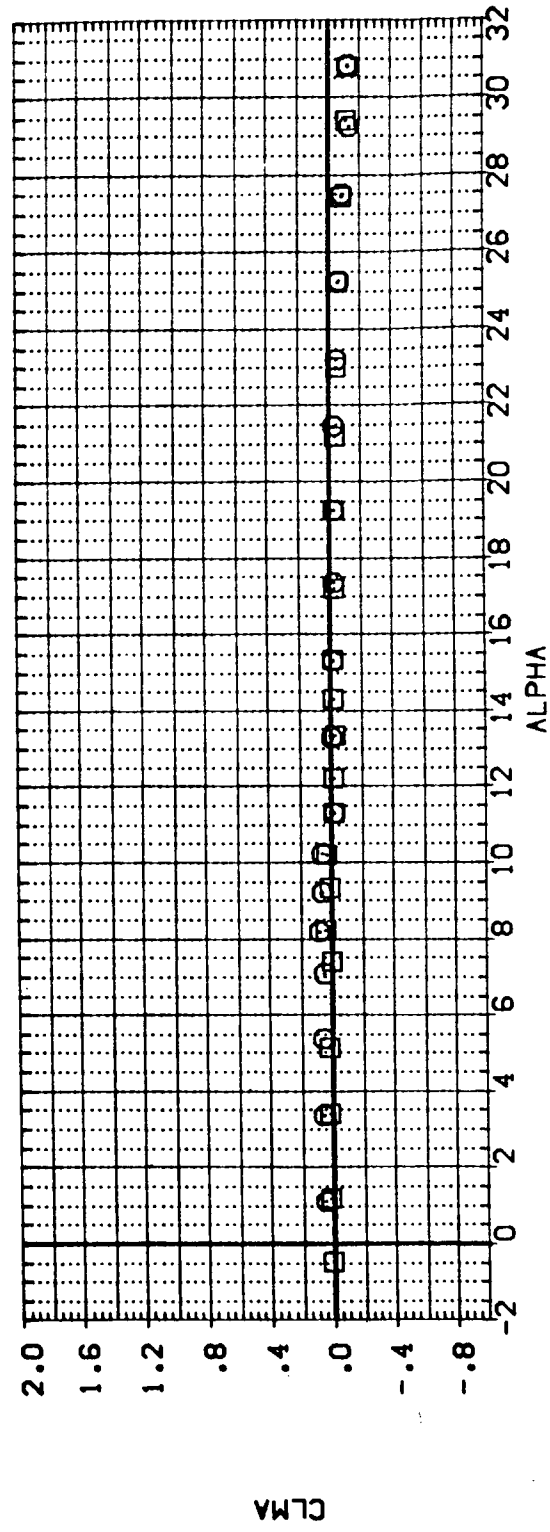
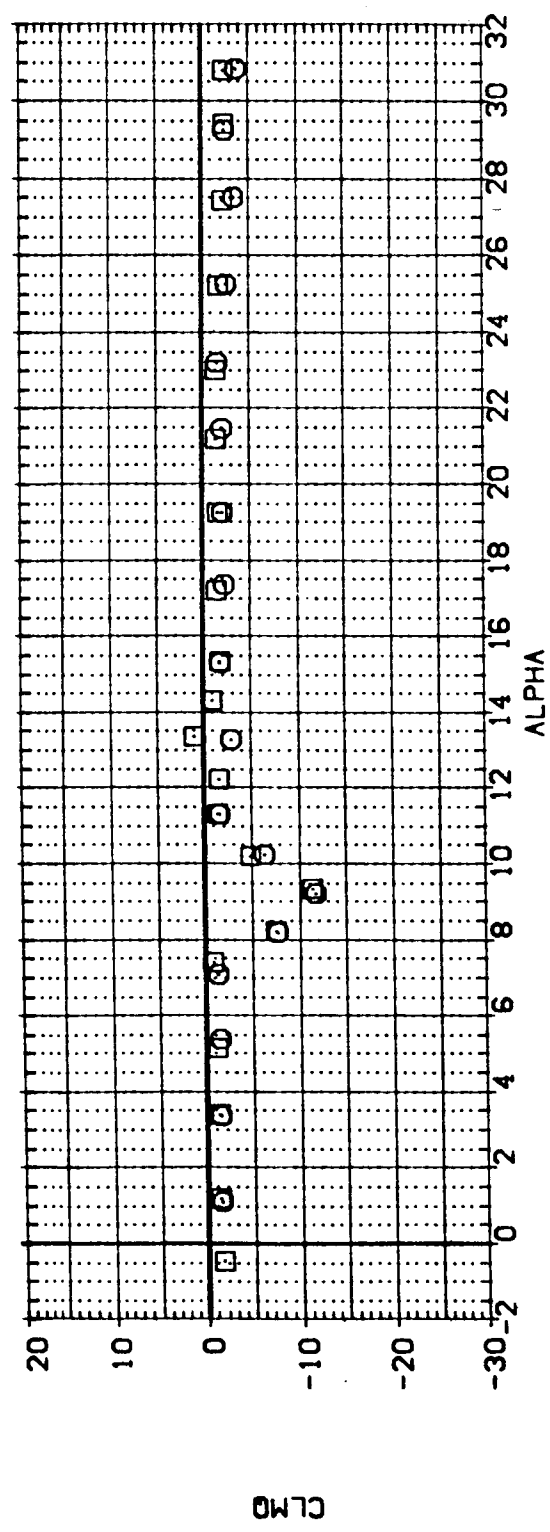


FIGURE 6. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN PITCH

(C)MACH = 4.63

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUDELTR

(RPGY01)      LA-14, ROCKWELL ORB 0698 V/MOD, NOSE (BNV )      1.000      .000      40.000

(RPGY03)      LA-14, ROCKWELL ORB 0698 V/MOD, NOSE (BNVM )      1.000      .000      40.000

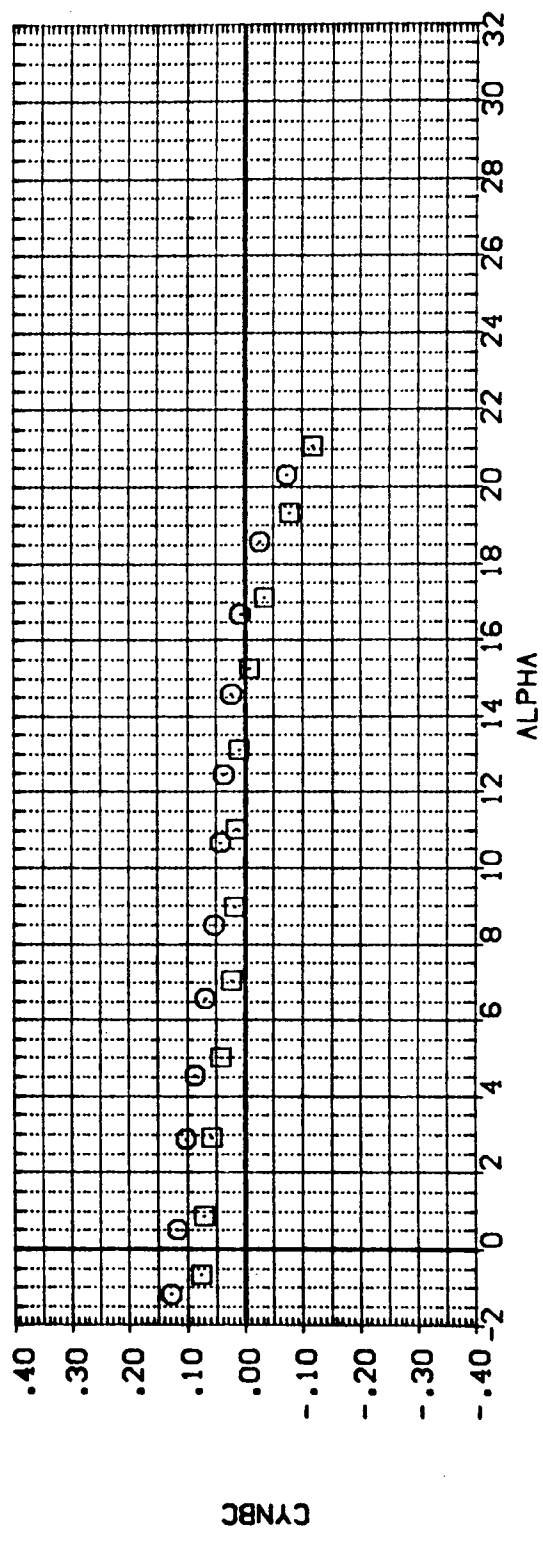
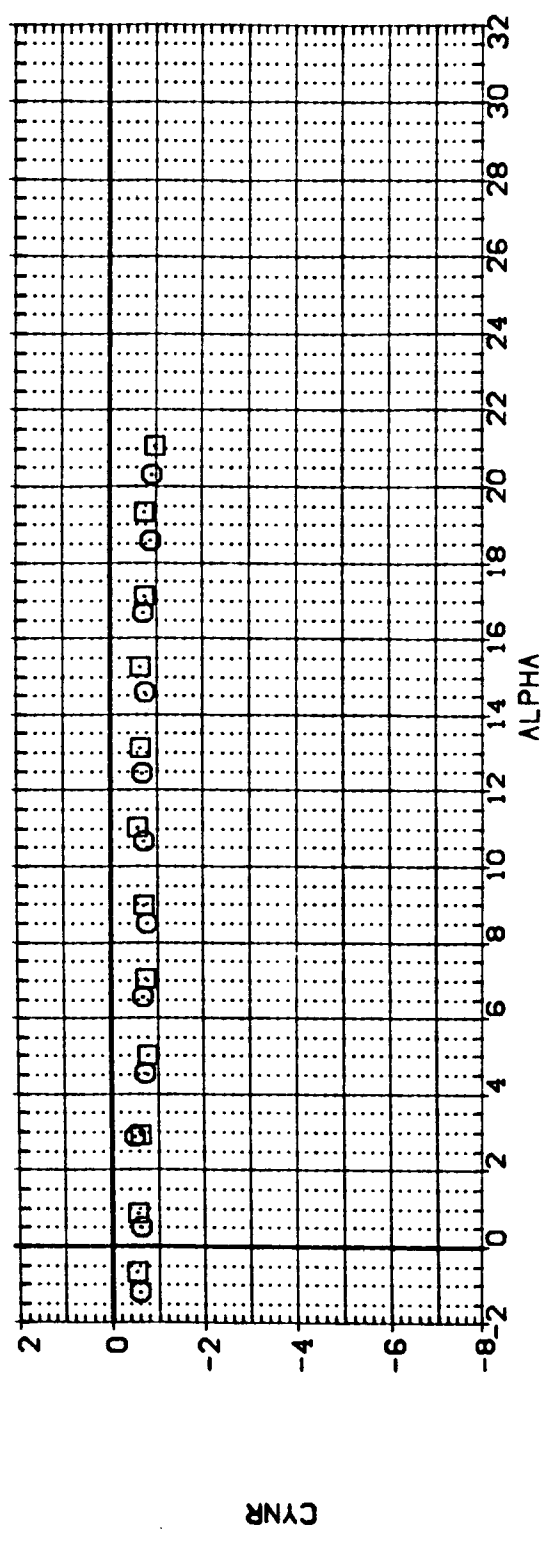


FIGURE 7. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW

(A)MACH = 1.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 { RFGY01 }    LA-14, ROCKWELL O88 O888 V/MOD, NOSE (BVM )    1.000    .000    40.000  
 { RFGY03 }    LA-14, ROCKWELL O88 O888 V/MOD, NOSE (BVM )    1.000    .000    40.000

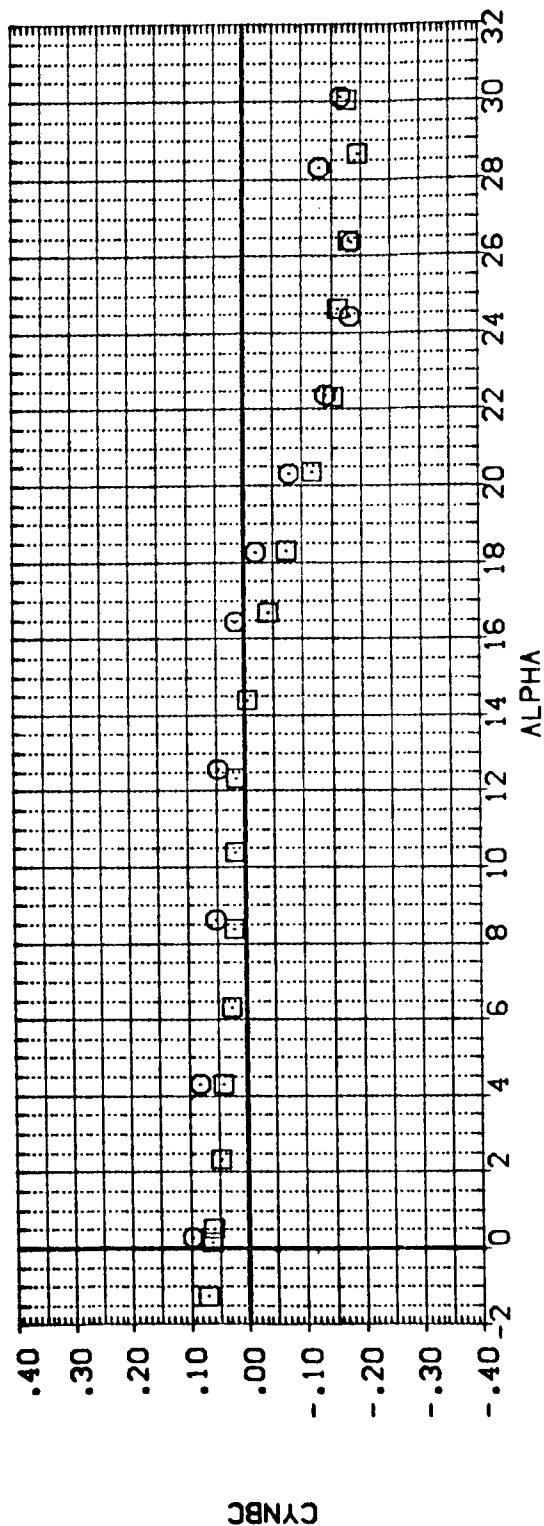
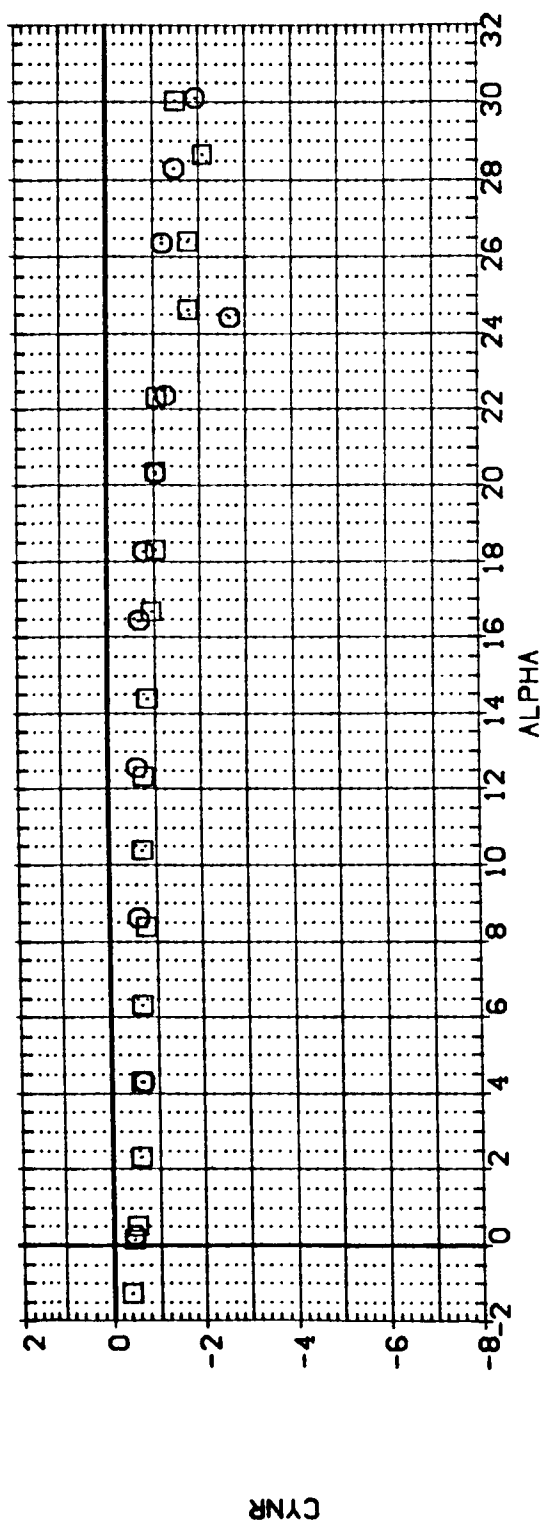


FIGURE 7. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUJFLR  
 (RPGY01)    LA-14, ROCKWELL D9B D958 V/MOD, NOSE (BVM)    1.000    .000    40.000  
 (RPGY03)    LA-14, ROCKWELL D9B D958 V/MOD, NOSE (BVM)    1.000    .000    40.000

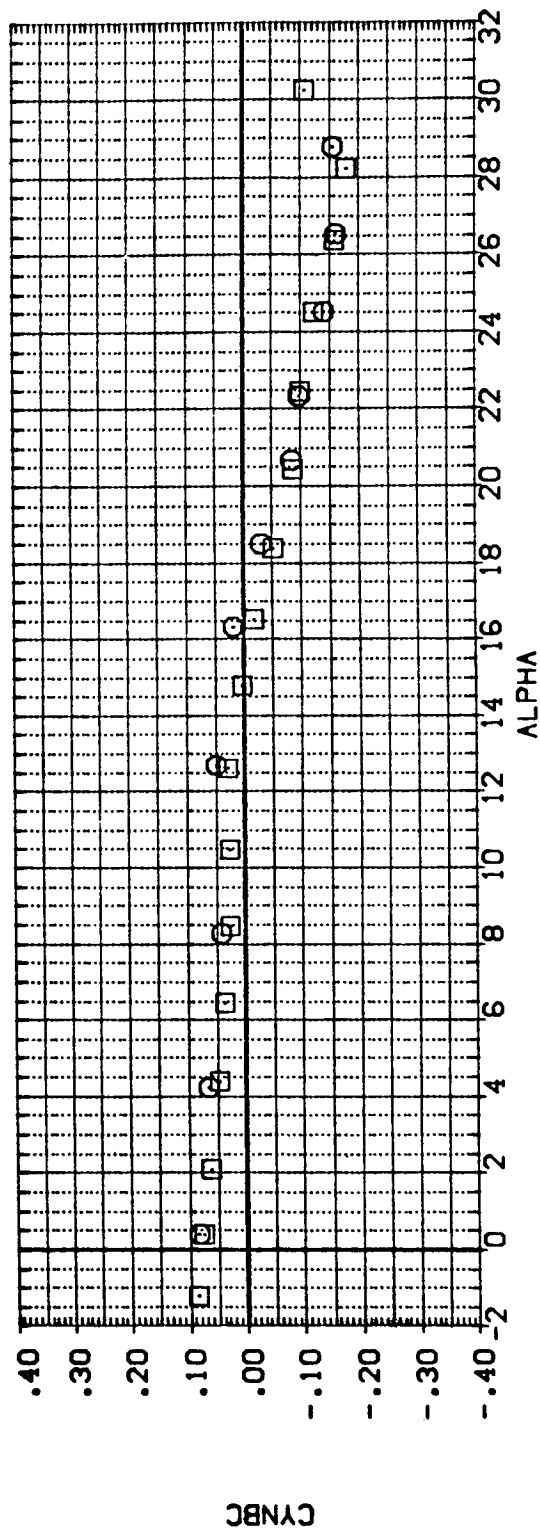
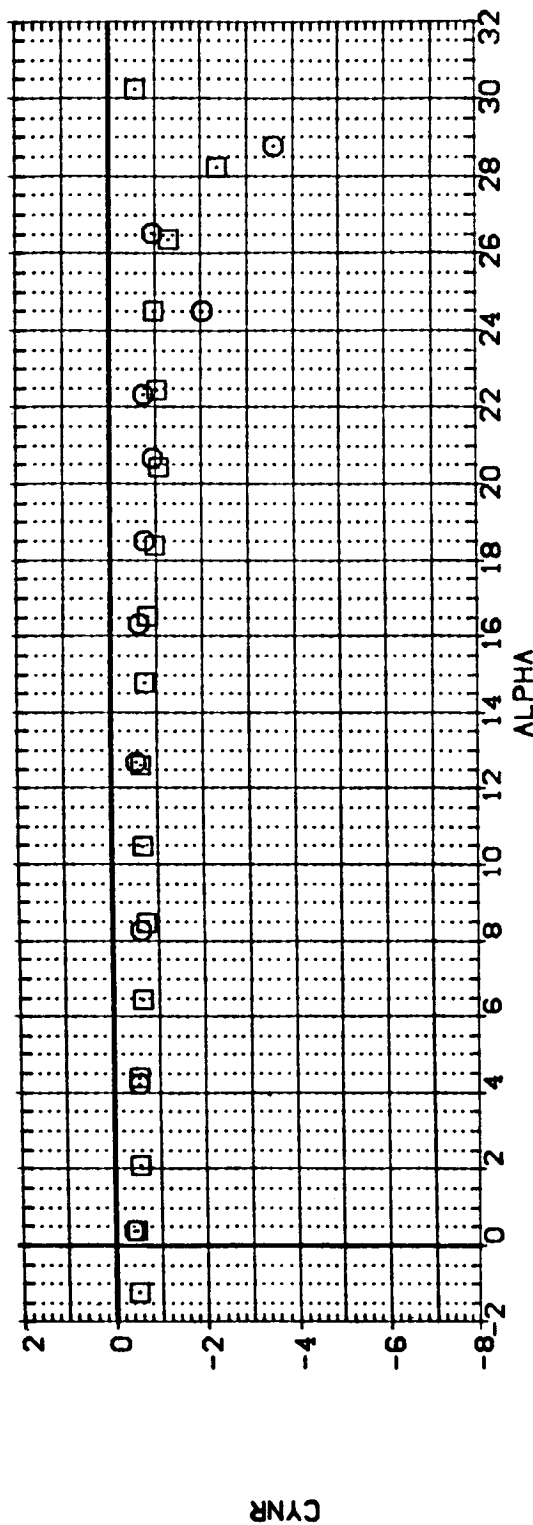


FIGURE 7. EFFECT OF CMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW

(CJ)MACH = 2.86

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFELR  
 (RPGY01)      LA-14, ROCKWELL ORB 0898 V/MOD. NOSE (BNV )      1.000      .000      40.000  
 (RPGY03)      LA-14, ROCKWELL ORB 0898 V/MOD. NOSE (BNV )      1.000      .000      40.000

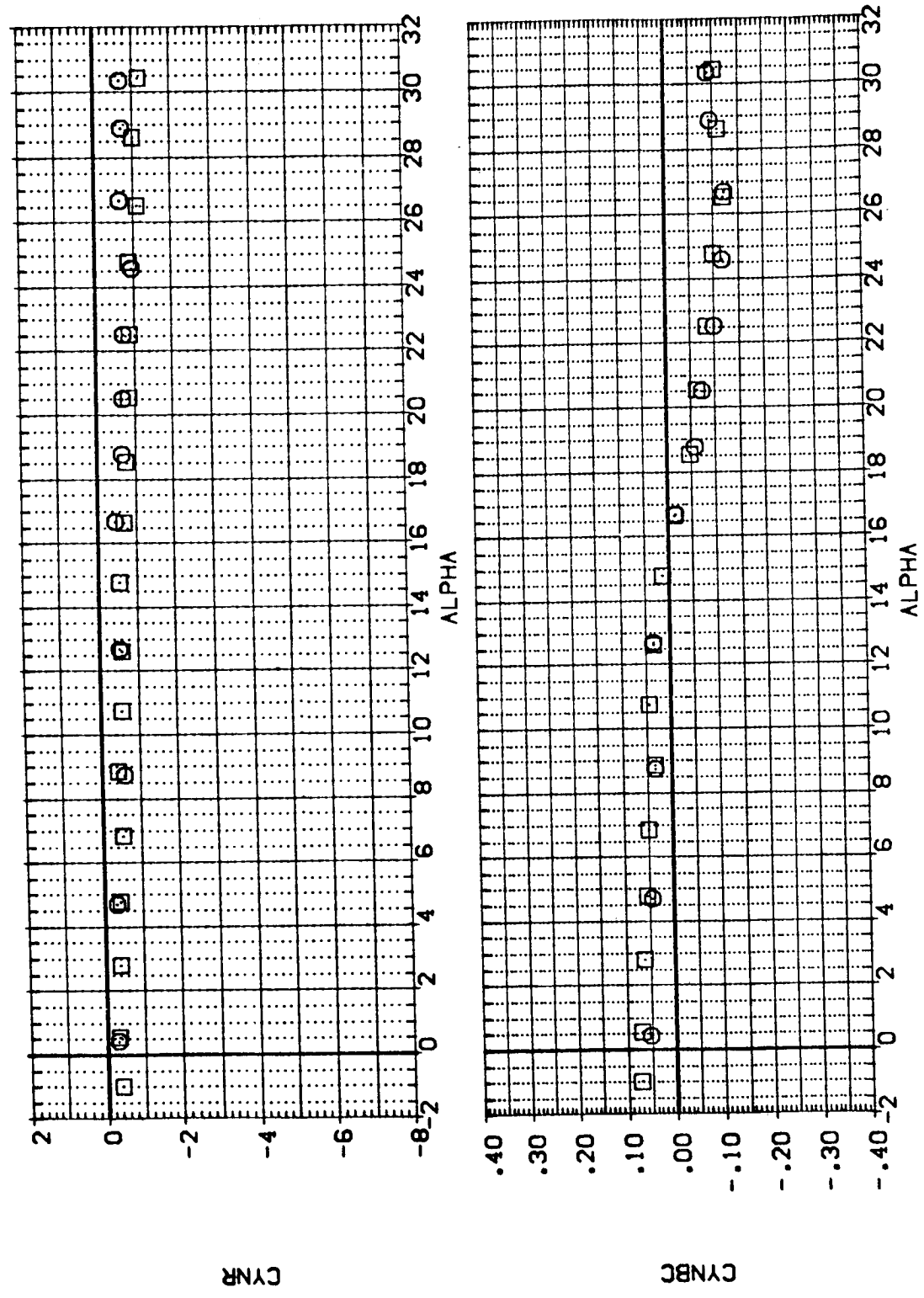


FIGURE 7. EFFECT OF QMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW

(COM)MACH = 3.96

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 (RPGV01)    LA-14; ROCKWELL ORB 0898 V/MOD. NOSE (BNV )    1.000    .000    40.000  
 (RPGV03)    LA-14; ROCKWELL ORB 0898 V/MOD. NOSE (BNVM )    1.000    .000    40.000

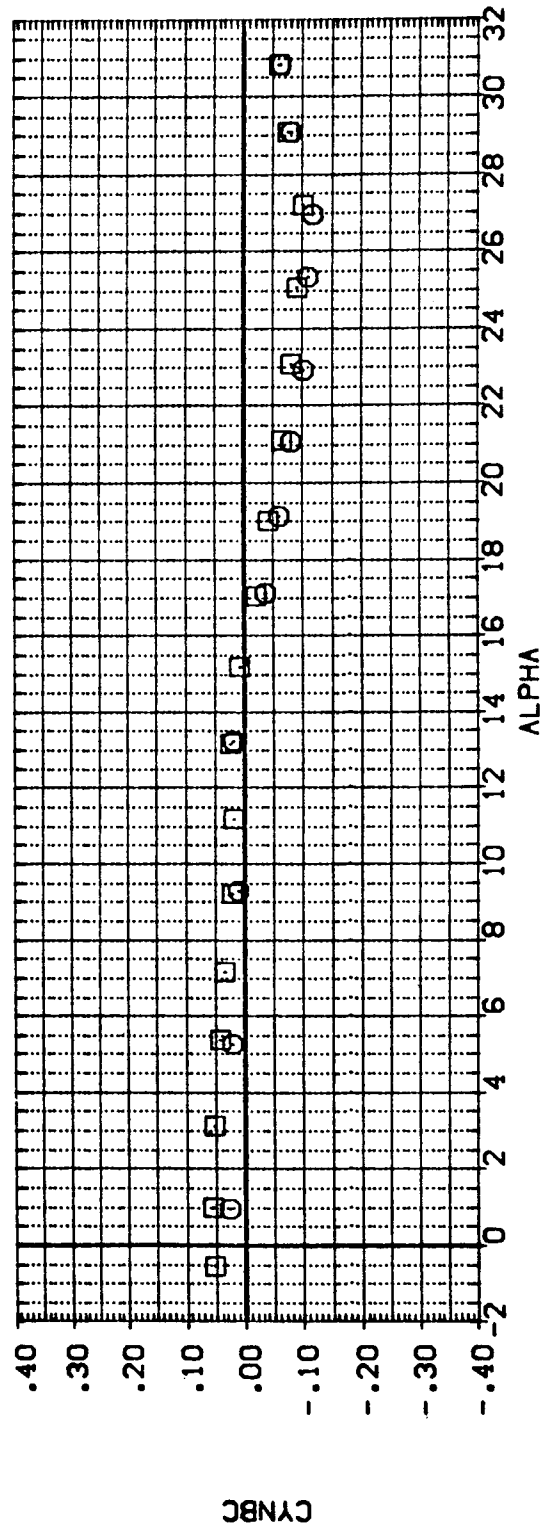
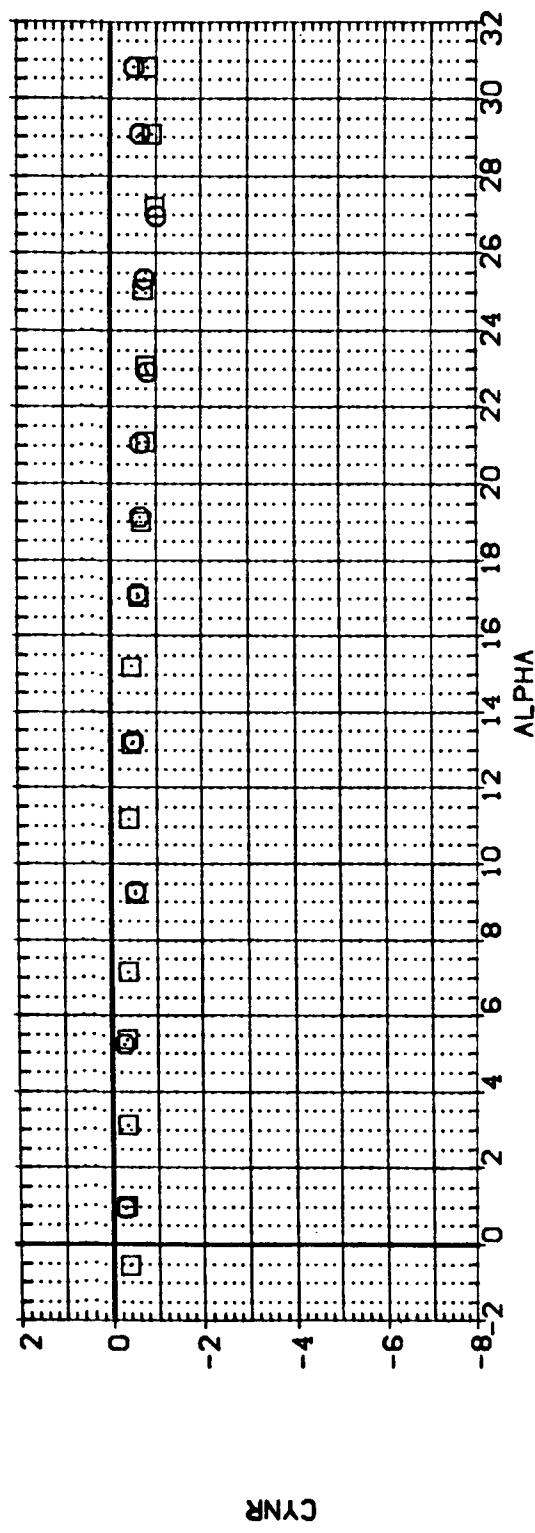


FIGURE 7. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW

(E)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	RUDFLR
(RPGY01)	LA-14; ROCKWELL ORB D898 V/MOD. NOSE (BVM )	1.000	.000	40.000
(RPGY03)	LA-14; ROCKWELL ORB D898 V/MOD. NOSE (BVM )	1.000	.000	40.000

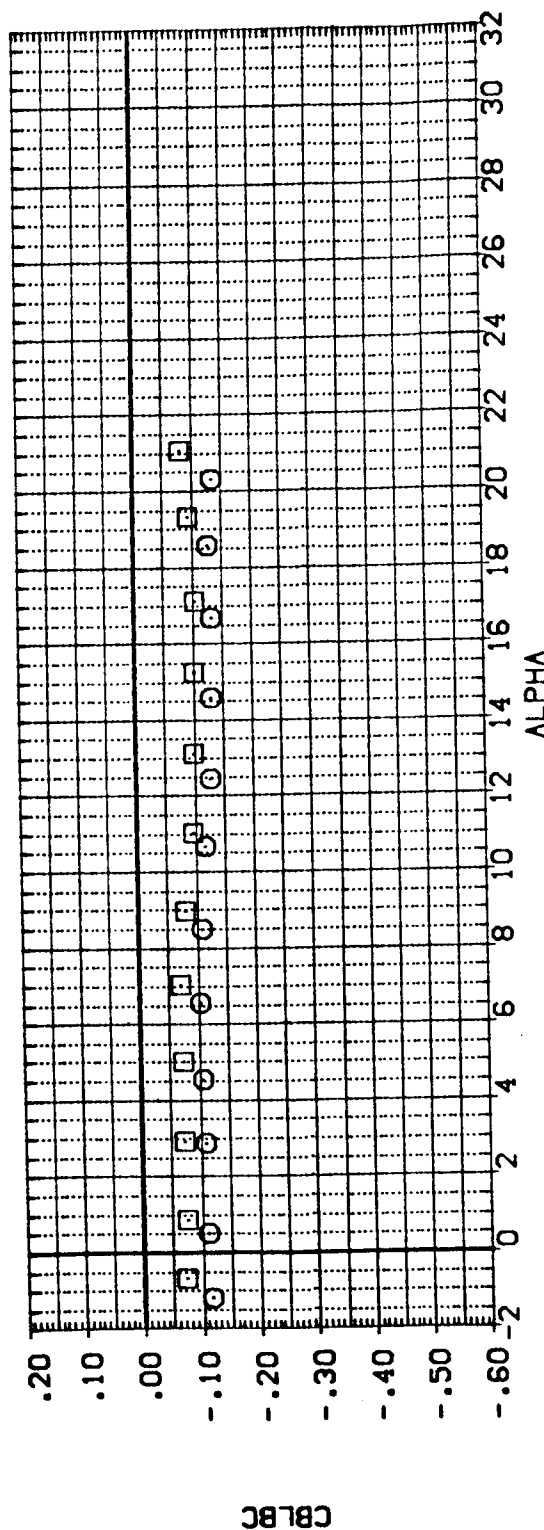
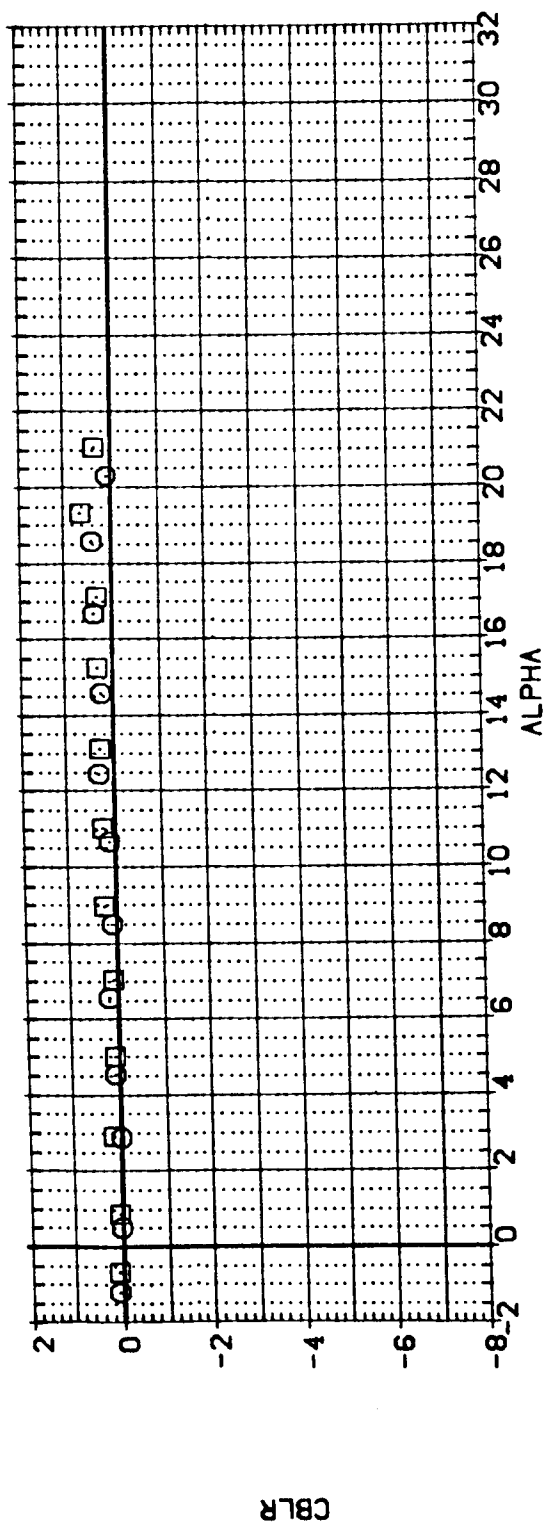


FIGURE 7. EFFECT OF CMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW

(A)MACH = 1.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUDEL R

(RFGY01)    LA-14: ROCKWELL ORB 0898 V/MOD. NOSE (BVM)    1.000    .000    40.000

(RFGY03)    LA-14: ROCKWELL ORB 0898 V/MOD. NOSE (BVM)    1.000    .000    40.000

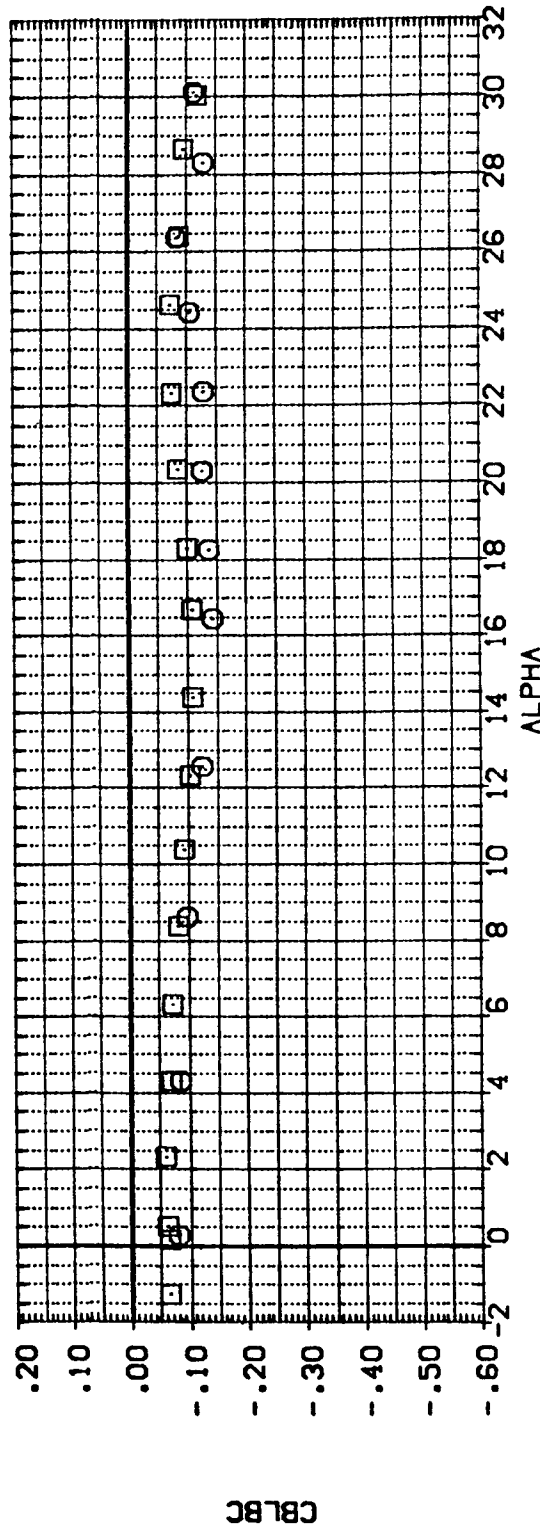
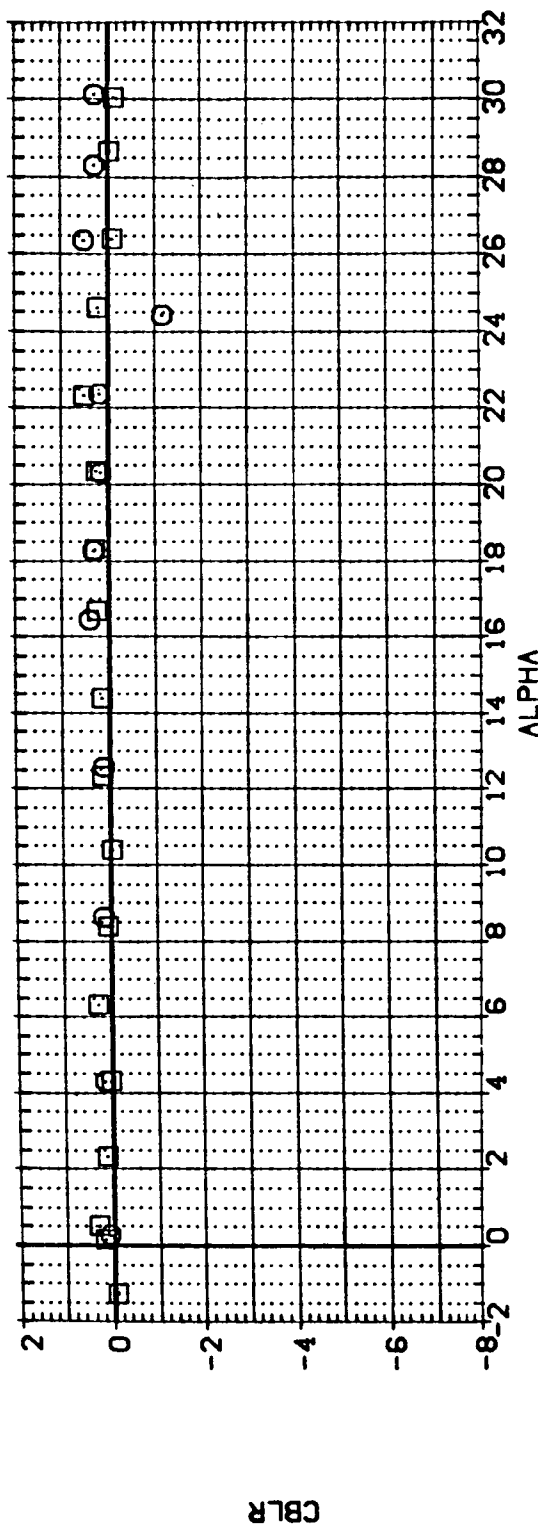


FIGURE 7. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW

(B)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	RUOFLR
(RPGY01)	LA-14, ROCKWELL ORB DBSB V/MOD, NOSE (BVM)	1.000	.000	40.000
(RPGY03)	LA-14, ROCKWELL ORB DBSB V/MOD, NOSE (BVM)	1.000	.000	40.000

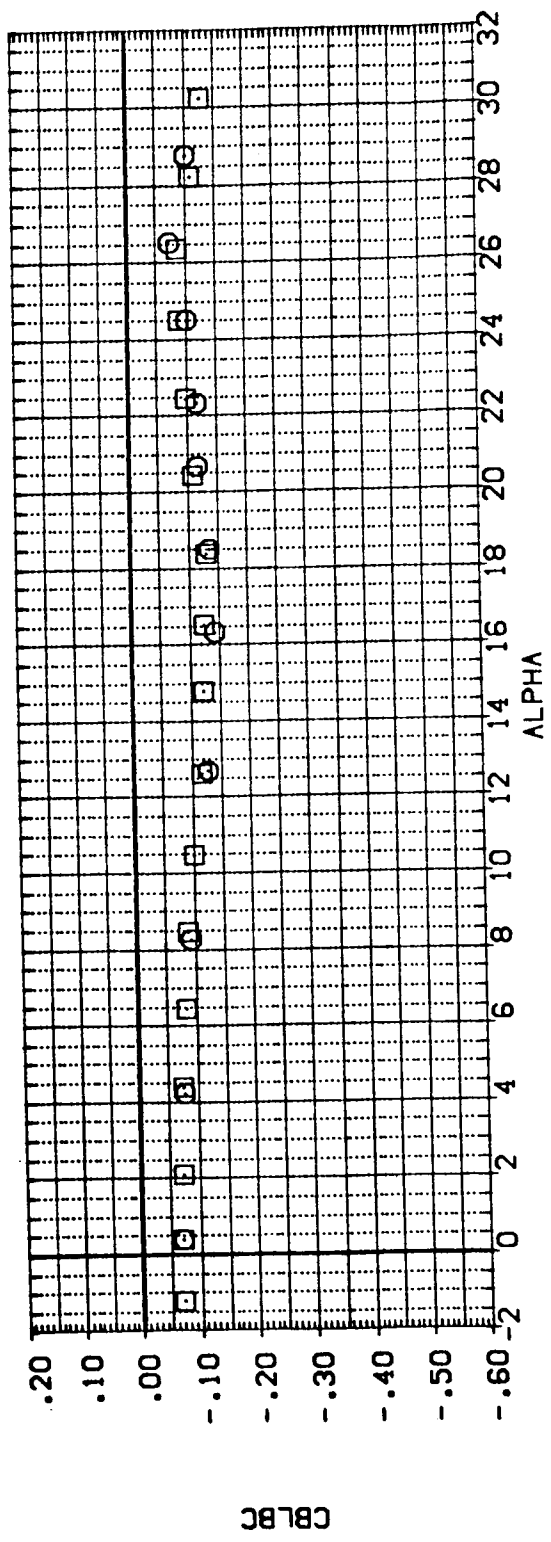
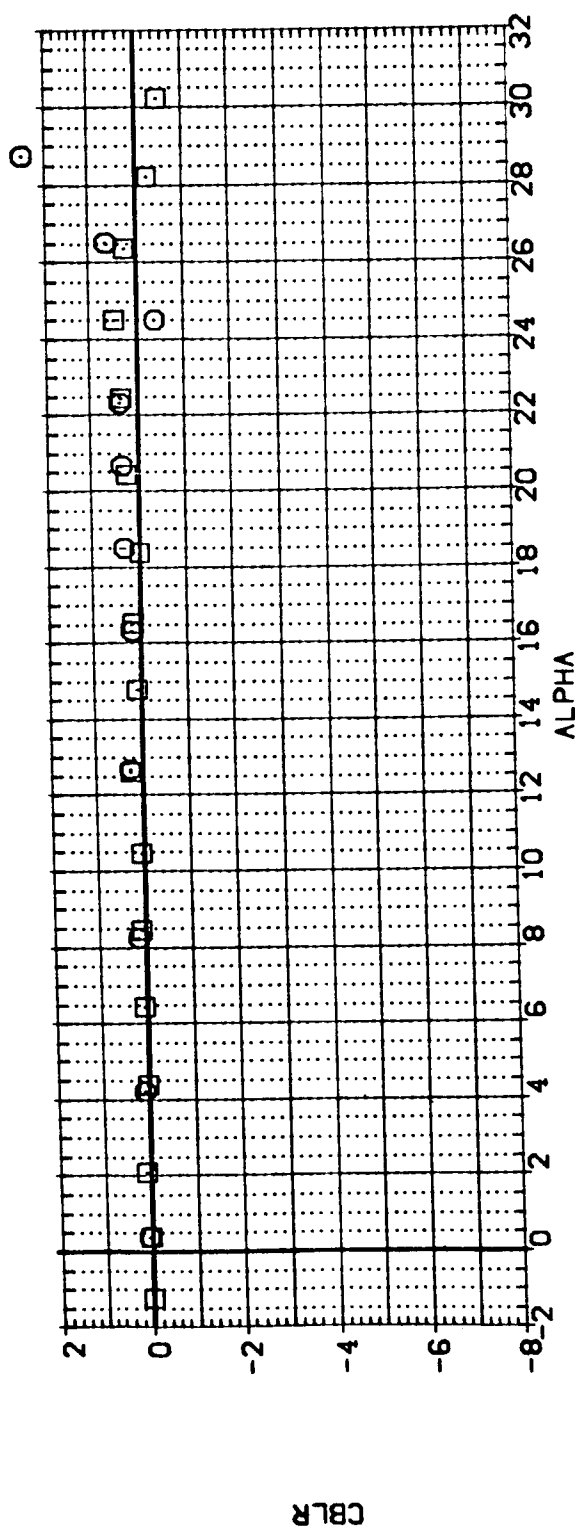


FIGURE 7. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW

(C)MACH = 2.86

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 (RPGV01)      LA-14, ROCKWELL ORB 0898 V/HOOD, NOSE (BNV) }      1.000      .000      40.000  
 (RPGV03)      LA-14, ROCKWELL ORB 0898 V/HOOD, NOSE (BNVM) }      1.000      .000      40.000

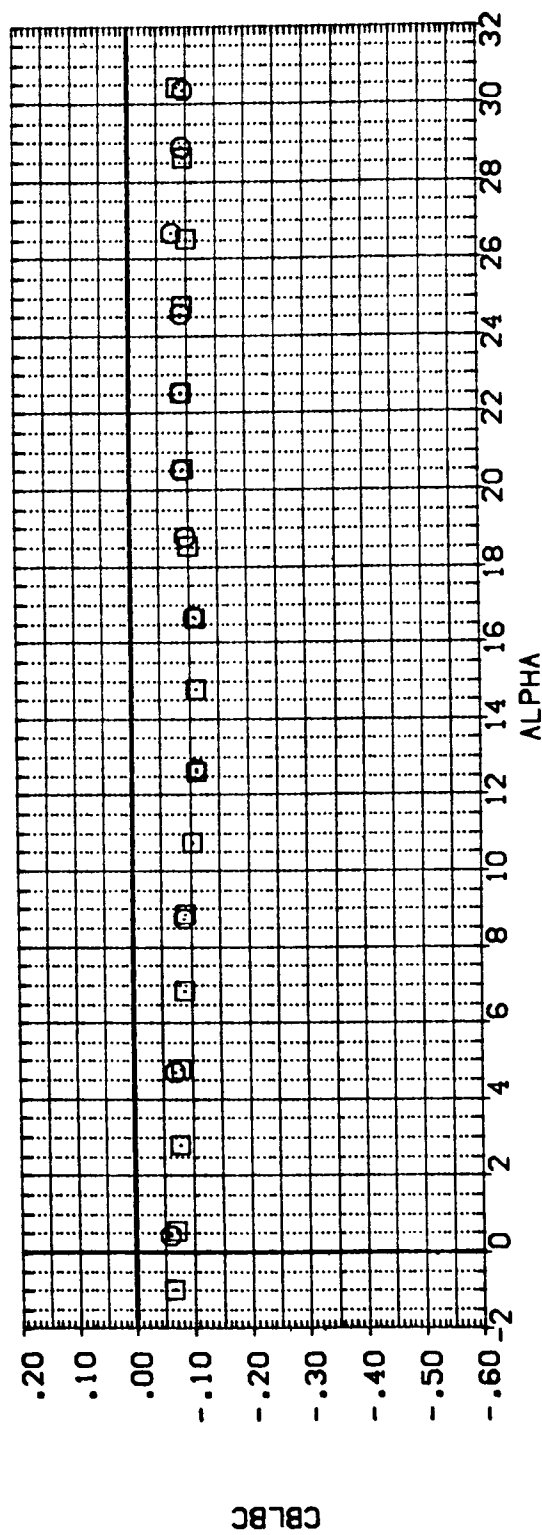
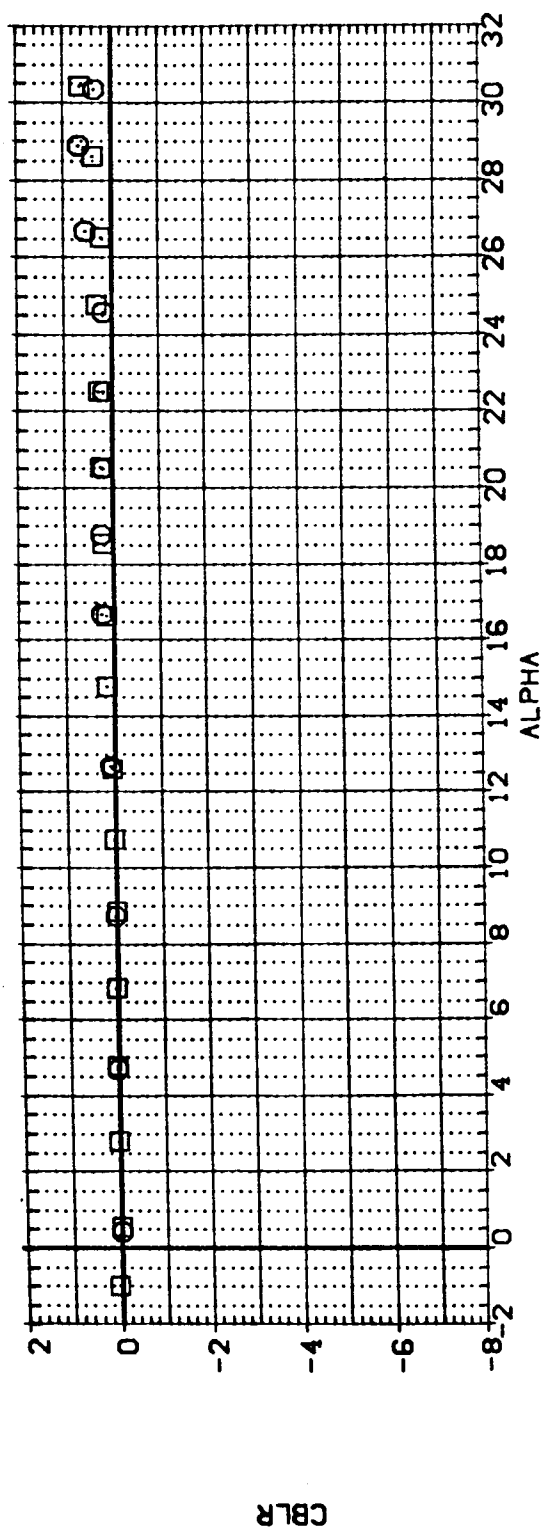


FIGURE 7. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW

(O)MACH = 3.96

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUDELR  
 {RPGV01}    LA-14; ROCKWELL CRB 0858 V/HOO; NOSE (BNV )    1.000    .000    40.000  
 {RPGV03}    LA-14; ROCKWELL CRB 0858 V/HOO; NOSE (BNVM )    1.000    .000    40.000

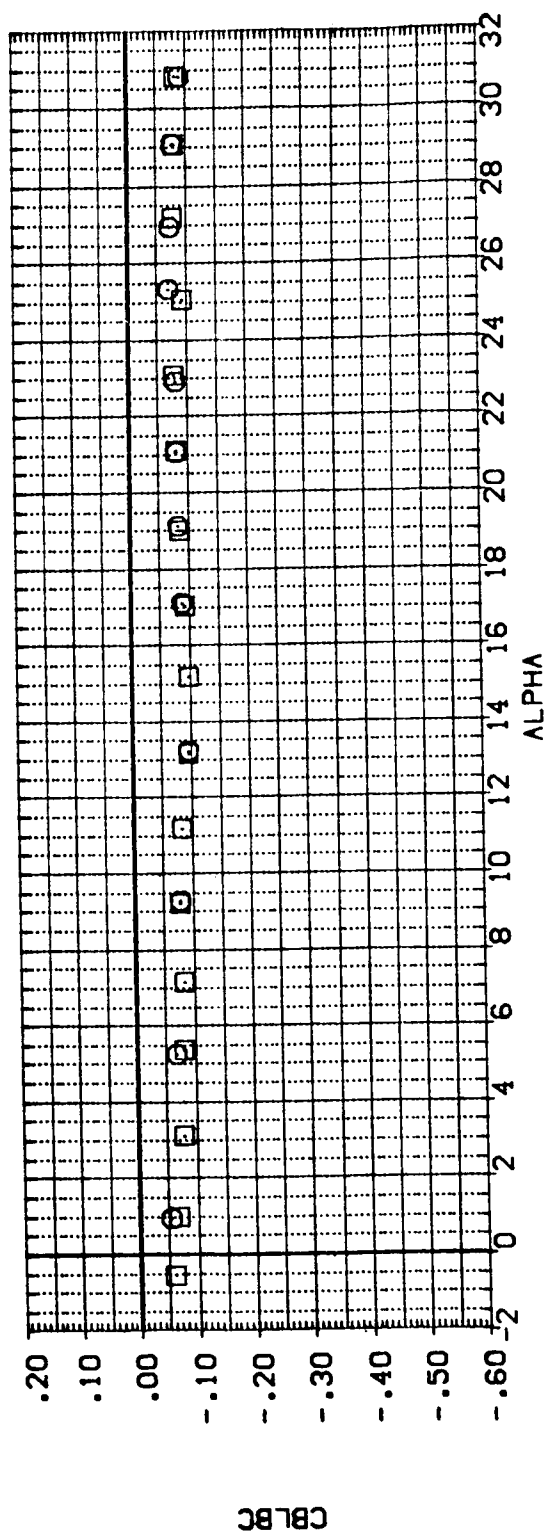
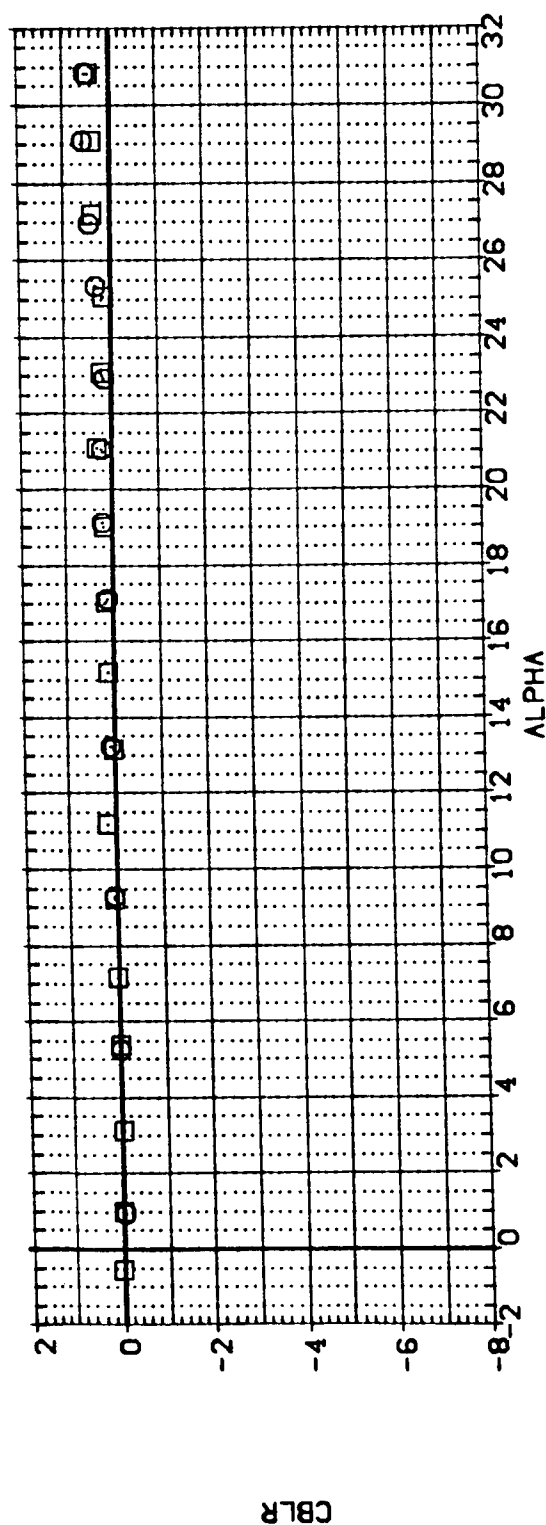


FIGURE 7. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN YAW

(E)MACH = 4.63



CG-LOC ELEVTR RUDEL R

LA-14. ROCKWELL ORB 0898 V/MOD. NOSE (BNV )

LA-14. ROCKWELL ORB 0898 V/MOD. NOSE (BNV )

DATA SET SYMBOL CONFIGURATION DESCRIPTION

LA-14. ROCKWELL ORB 0898 V/MOD. NOSE (BNV )

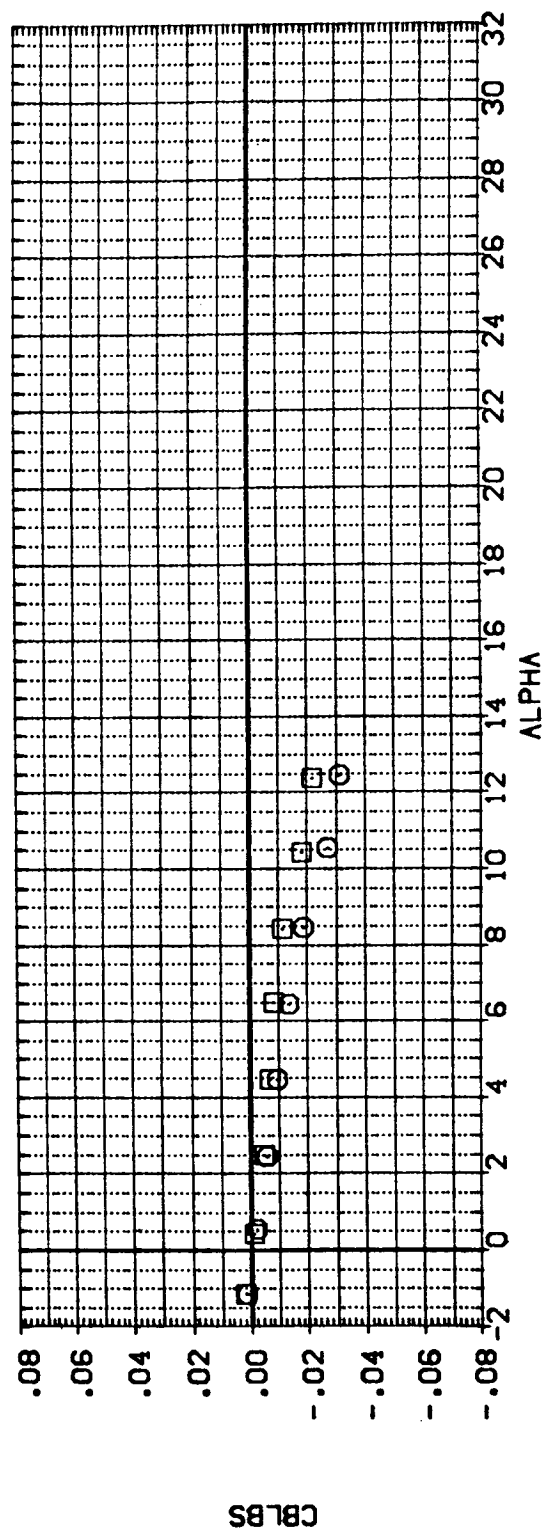
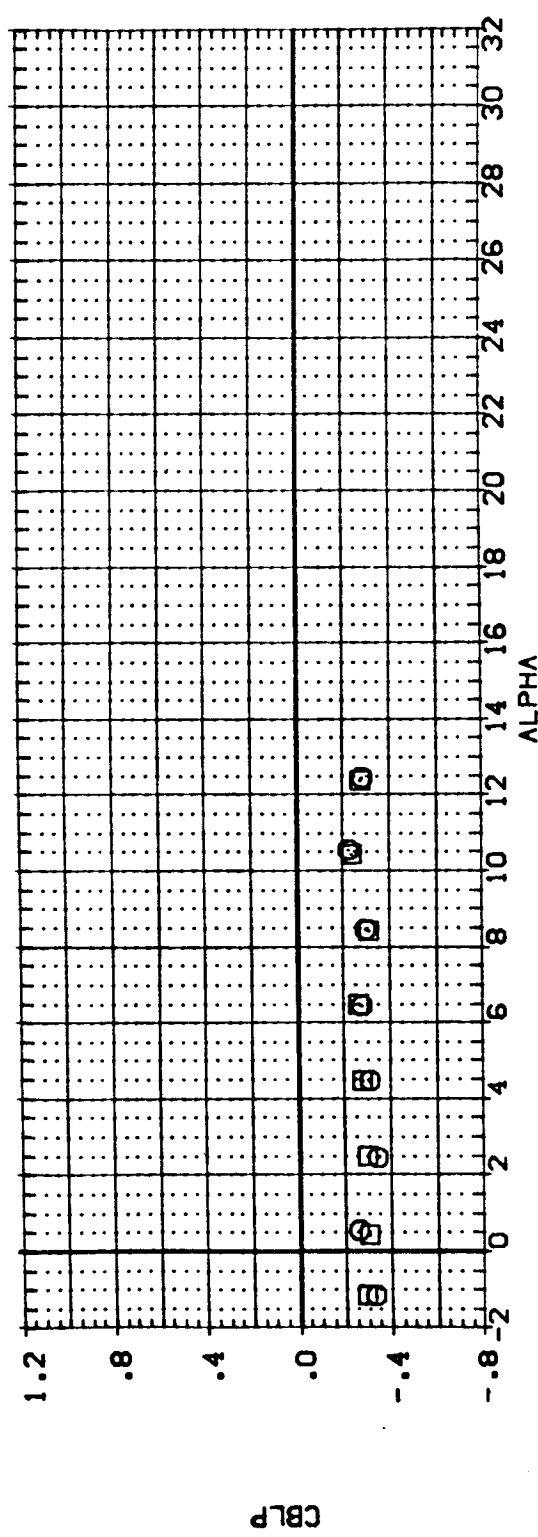


FIGURE 8. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

CAJ MACH = 1.60

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 (RPG001)      LA-14: ROCKWELL DRB 0898 V/MOD. NOSE (BVM )      1.000      .000      40.000  
 (RPG003)      LA-14: ROCKWELL DRB 0898 V/MOD. NOSE (BVM )      1.000      .000      40.000

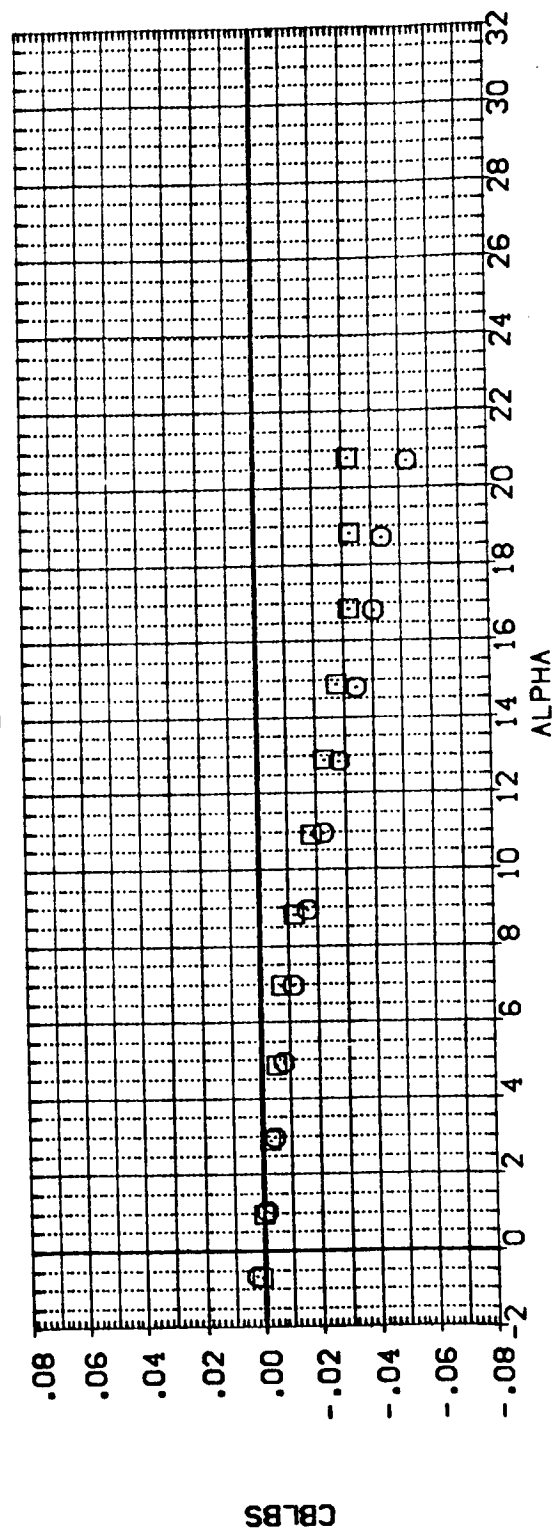
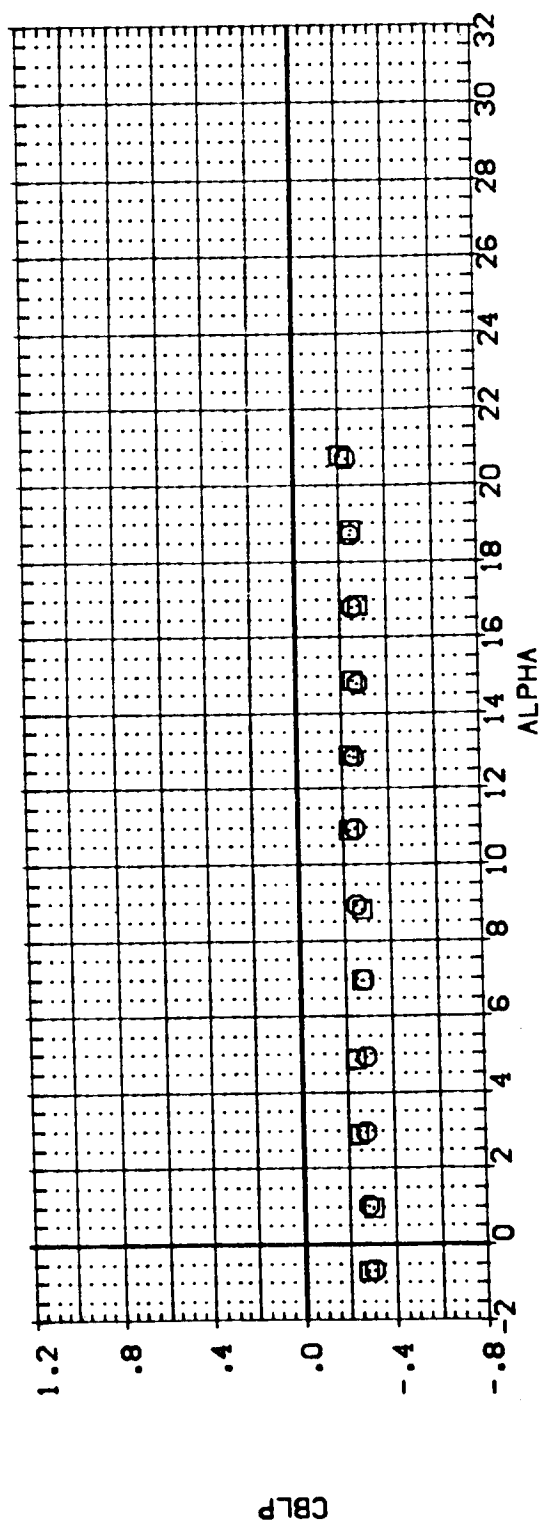


FIGURE 8. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(B)MACH = 1.90

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 [RPGRO1]      LA-14; ROCKWELL ORB DB98 V/MOD; NOSE (BVM)      1.000      .000      40.000  
 [RPGRO3]      LA-14; ROCKWELL ORB DB98 V/MOD; NOSE (BVM)      1.000      .000      40.000

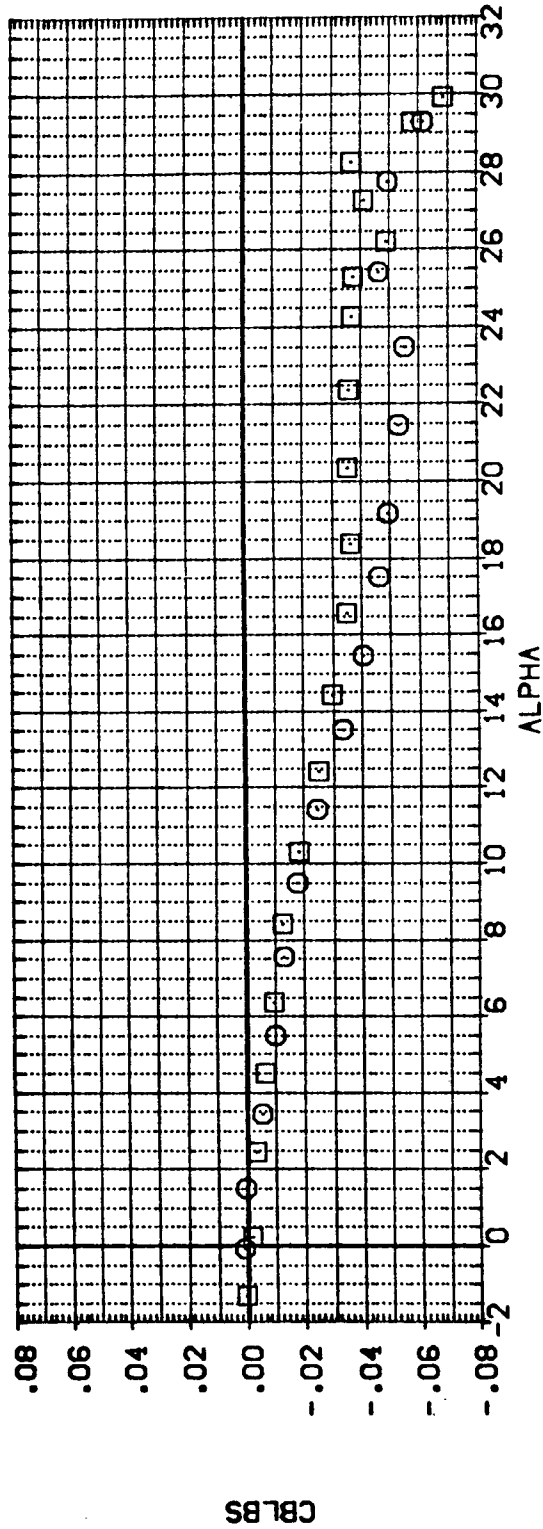
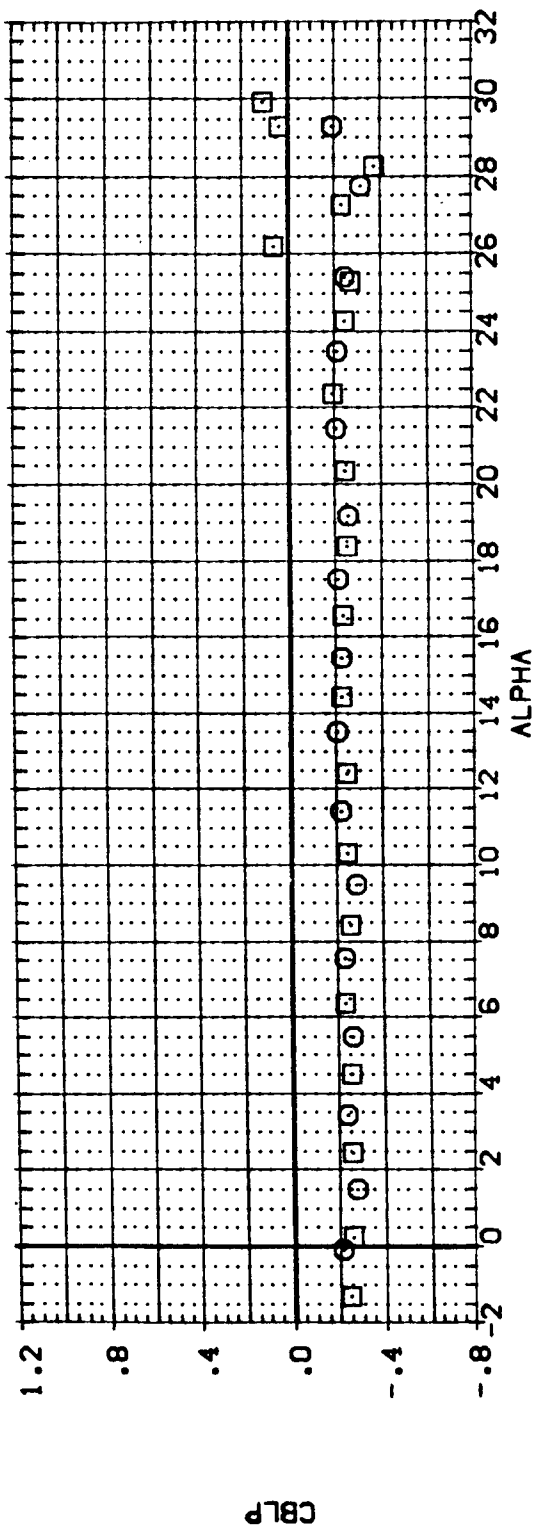


FIGURE 8. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(C)MACH = 2.36

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RPGRO1) □ DATA NOT AVAILABLE  
(RPGRO3) □

LA-14, ROCKWELL ORB 0898 V/MOD. NOSE (BNVM)

CG-LOC ELEVTR RUDELIR  
1.000 .000 40.000  
1.000 .000 40.000

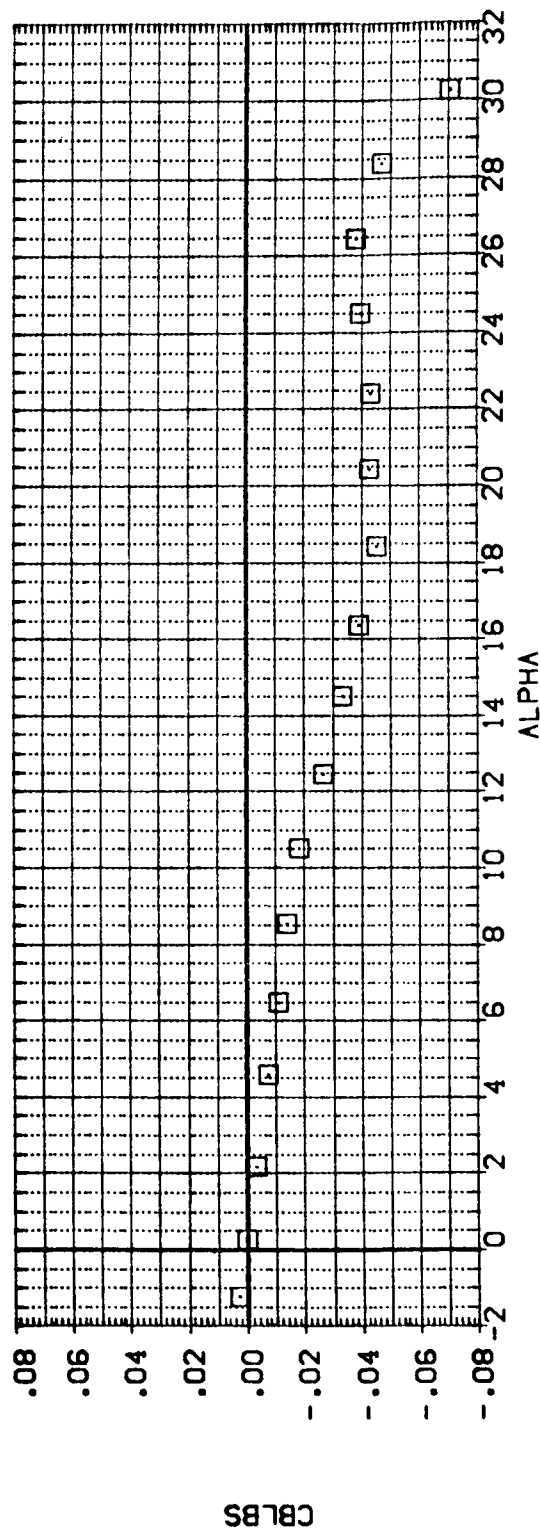
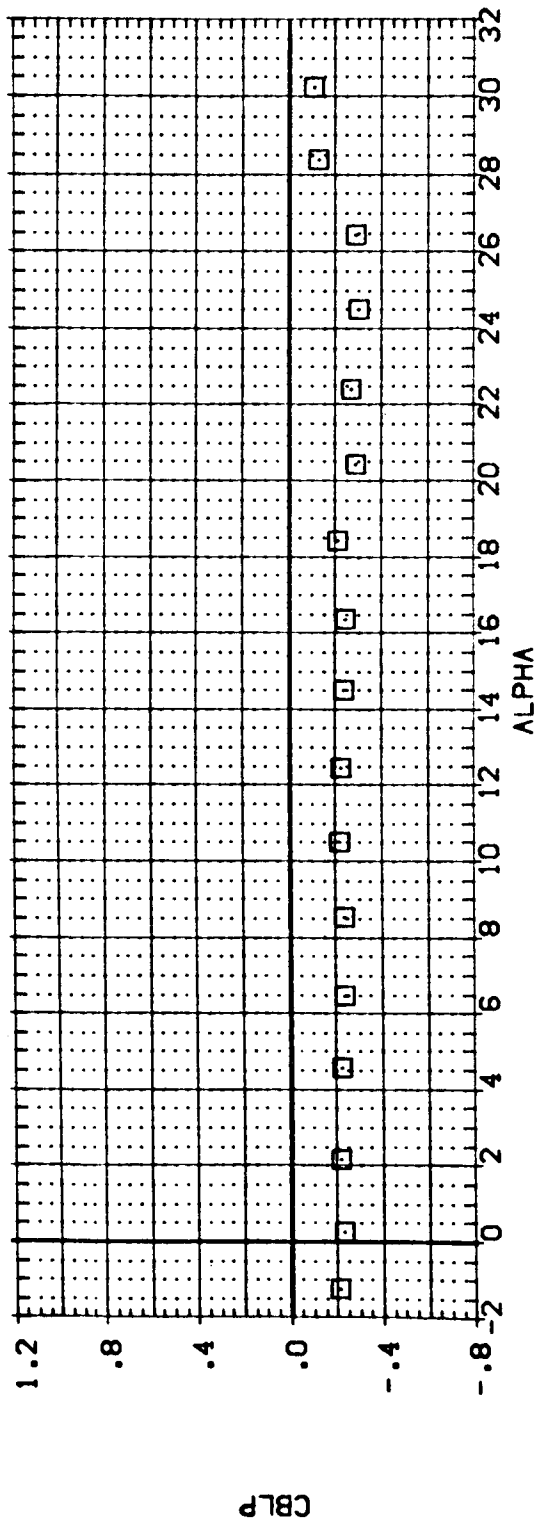


FIGURE 8. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(O)MACH = 2.86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	RJDFLR
(RPGRO1)	LA-14, ROCKWELL DRB D858 V/MOD, NOSE (BVM )	1.000	.000	40.000
(RPGRO3)	LA-14, ROCKWELL DRB D858 V/MOD, NOSE (BVM )	1.000	.000	40.000

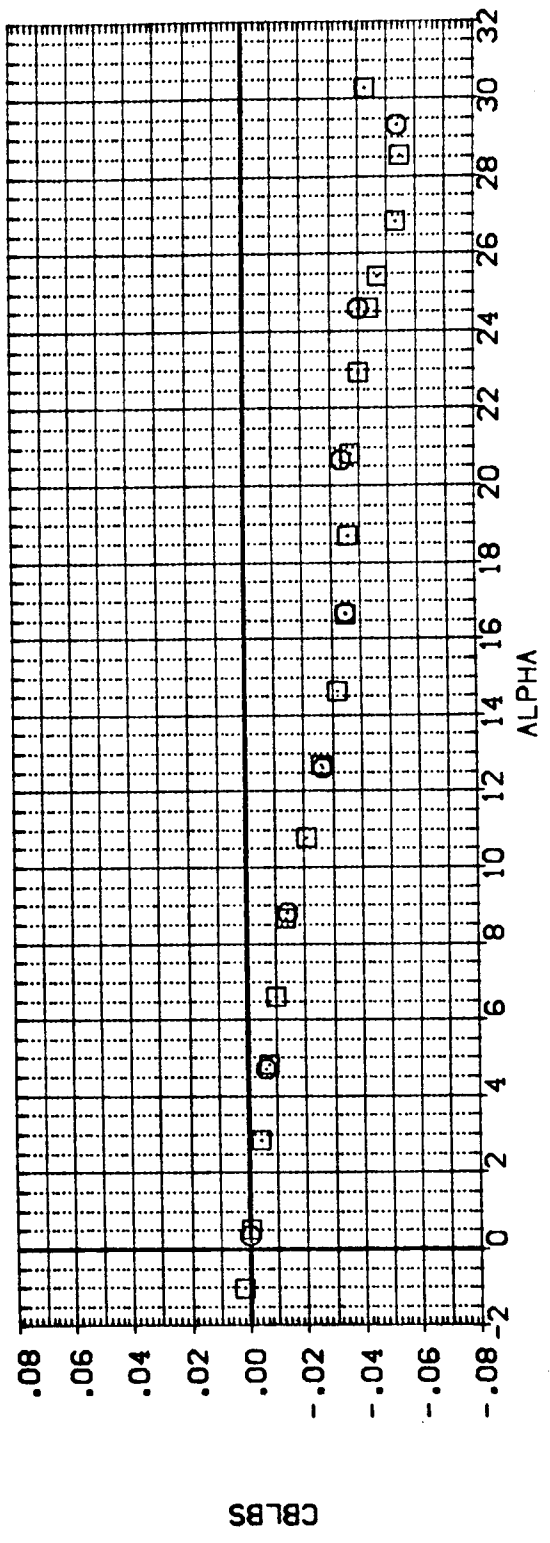
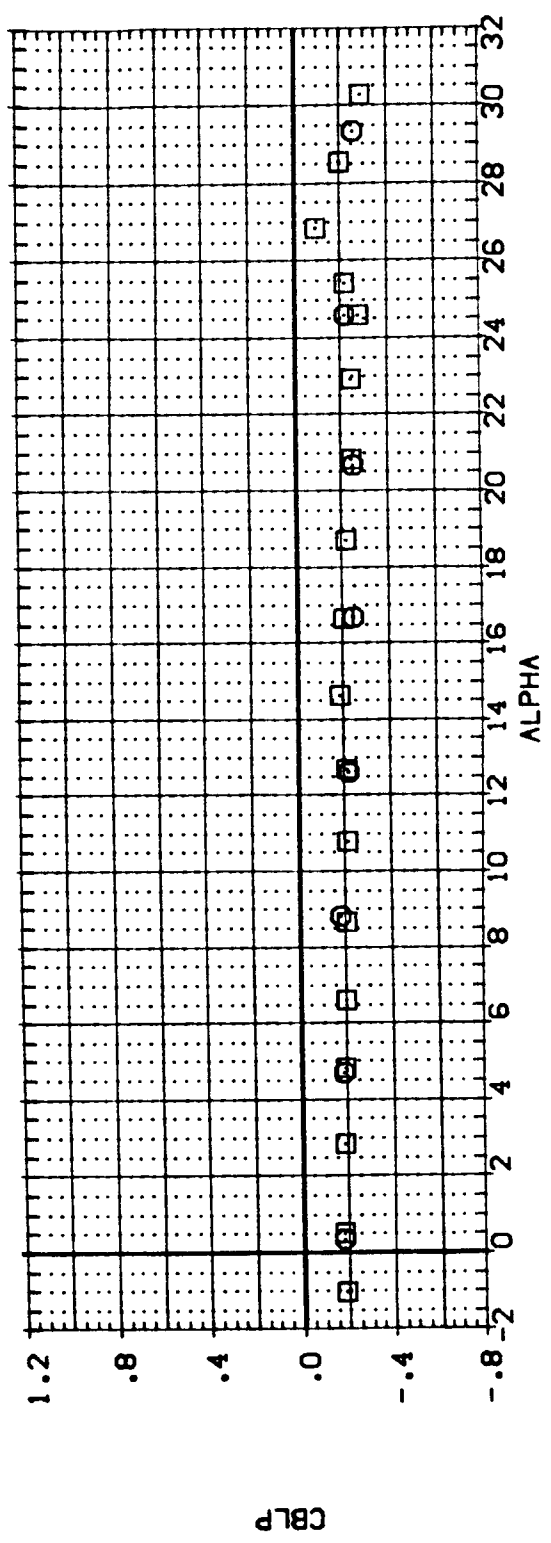


FIGURE 8. EFFECT OF CMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(E)MACH = 3.96

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUDELTR

(RPG901)      LA-14; ROCKWELL DRB 0898 V/MOD. NOSE (BVM)      1.000      .000      40.000

(RPG903)      LA-14; ROCKWELL DRB 0898 V/MOD. NOSE (BVM)      1.000      .000      40.000

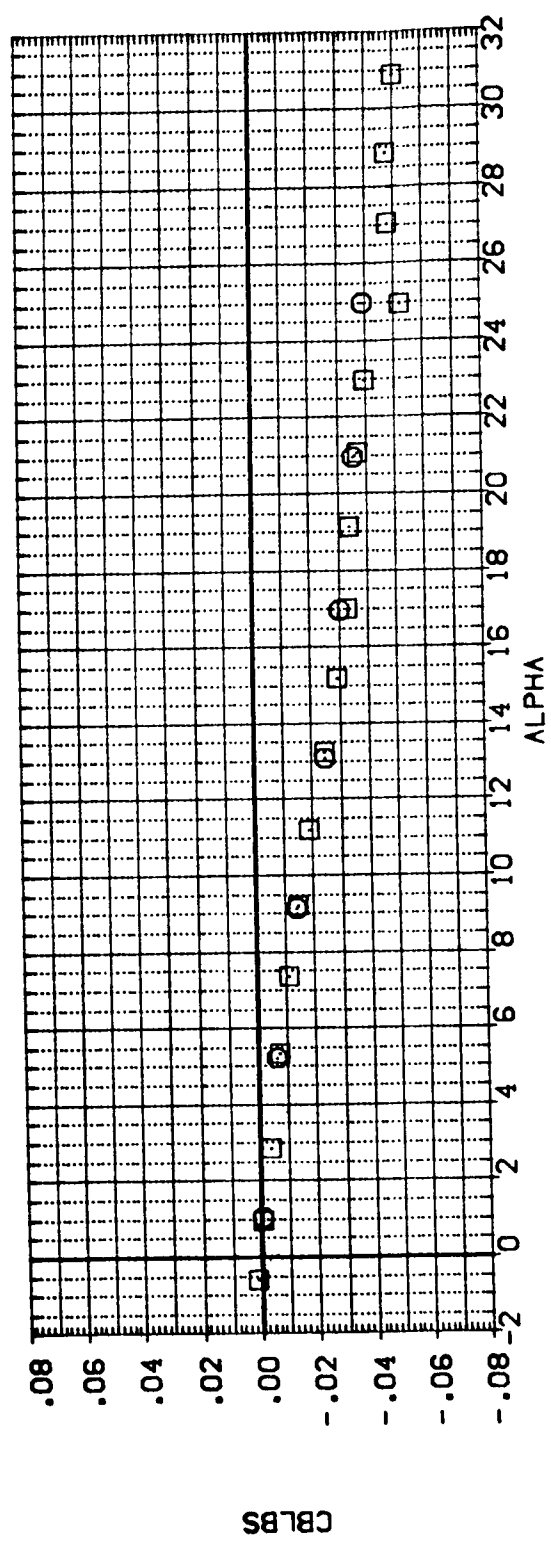
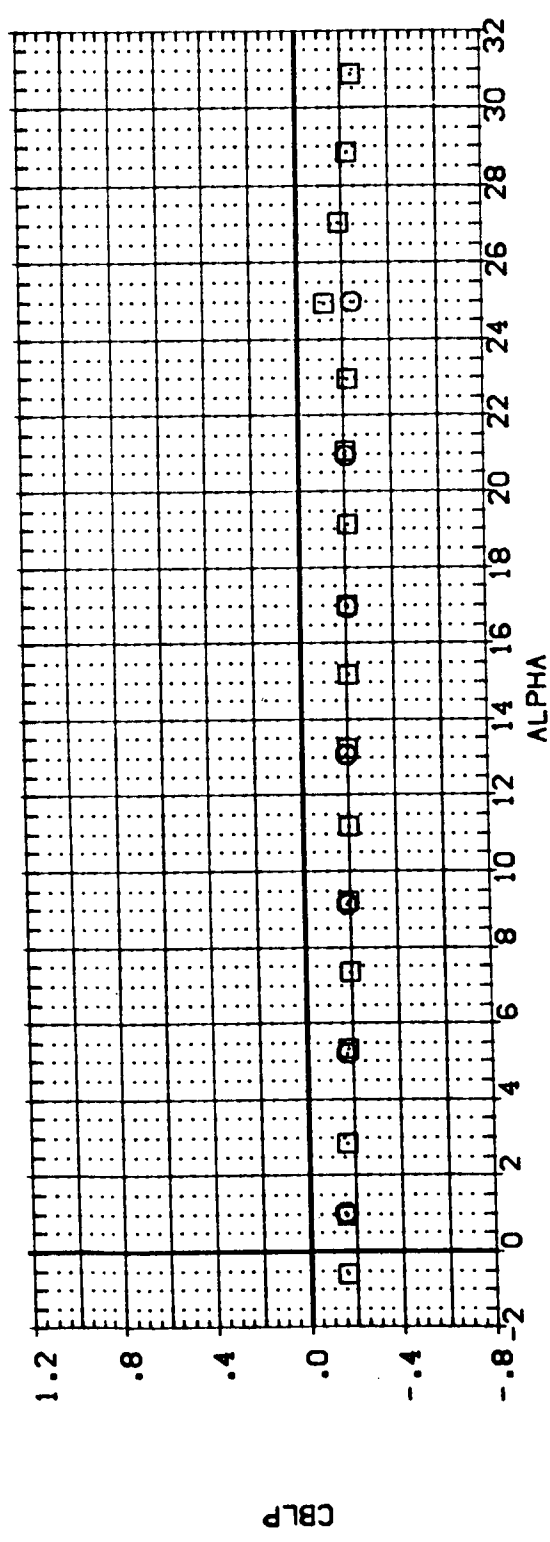


FIGURE 8. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(CF)MACH = 4.63

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    OS-LOC    ELEVTR    RUDEF LR

[RPGR01]    LA-14; ROCKWELL ORB 0898 V/MOD. NOSE (BVM )    1.000    .000    40.000

[RPGR03]    LA-14; ROCKWELL ORB 0898 V/MOD. NOSE (BVM )    1.000    .000    40.000

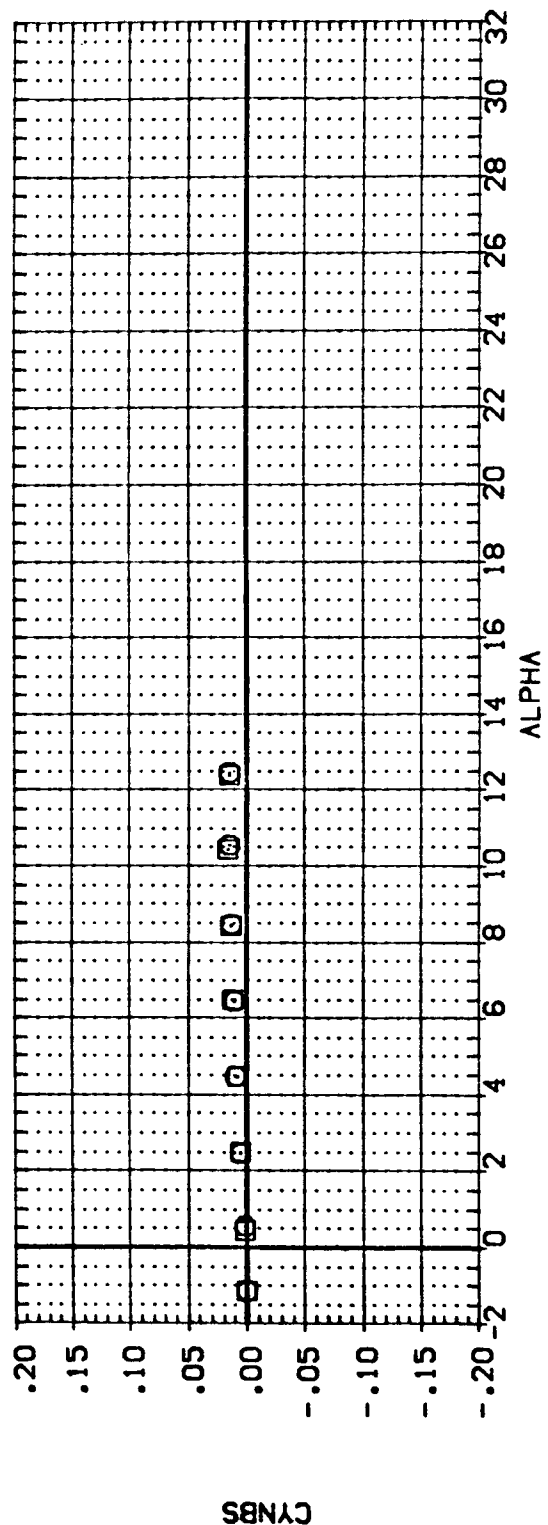
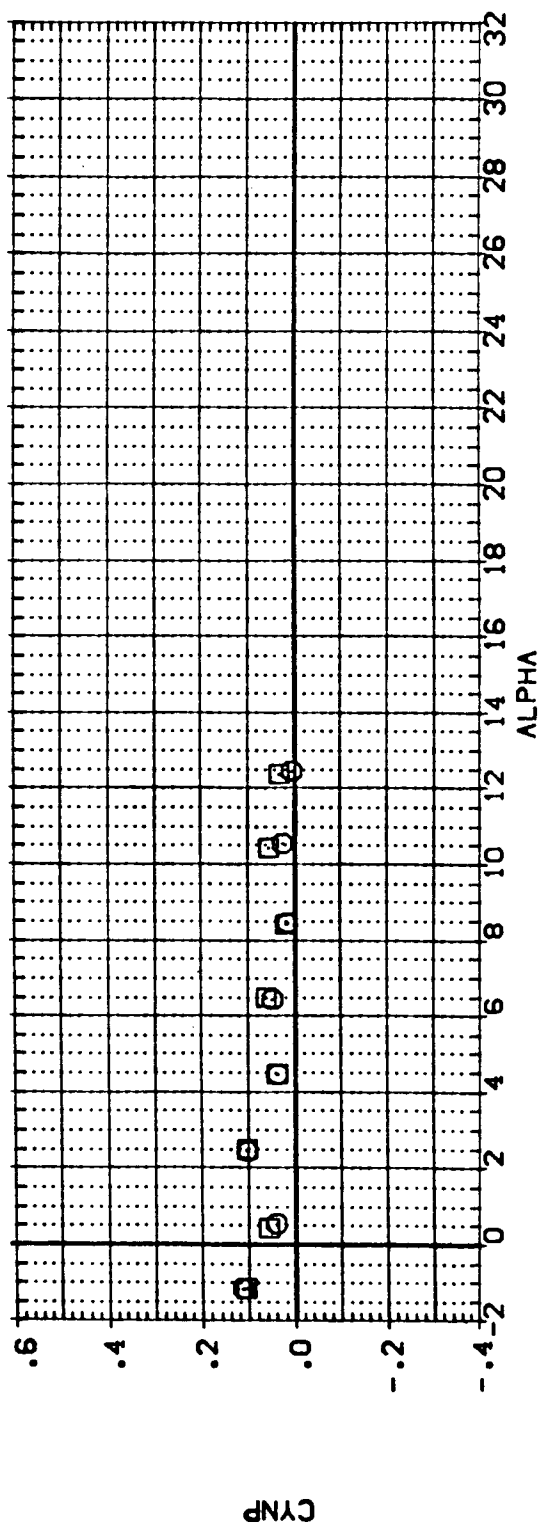


FIGURE 8. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(A)MACH = 1.60

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUDELR  
 (RPGRO1)    LA-14; ROCKWELL ORB 0888 V/MOD. NOSE (BNV )    1.000    .000    40.000  
 (RPGRO3)    LA-14; ROCKWELL ORB 0888 V/MOD. NOSE (BNVM )    1.000    .000    40.000

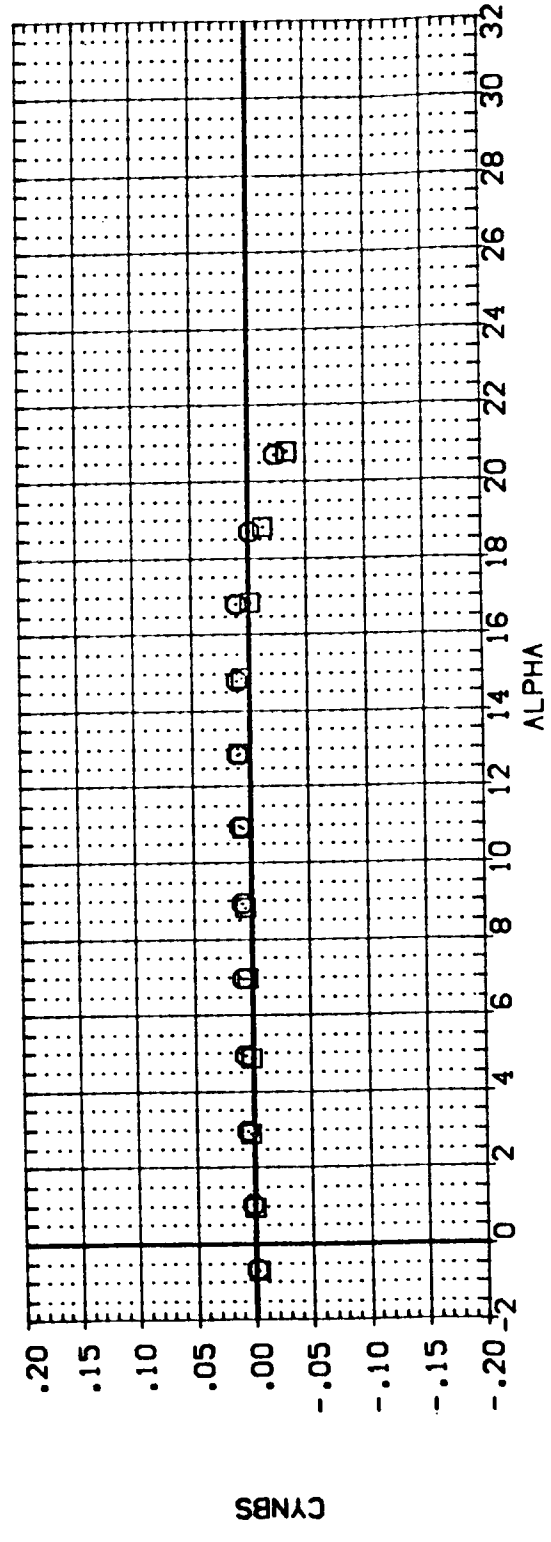
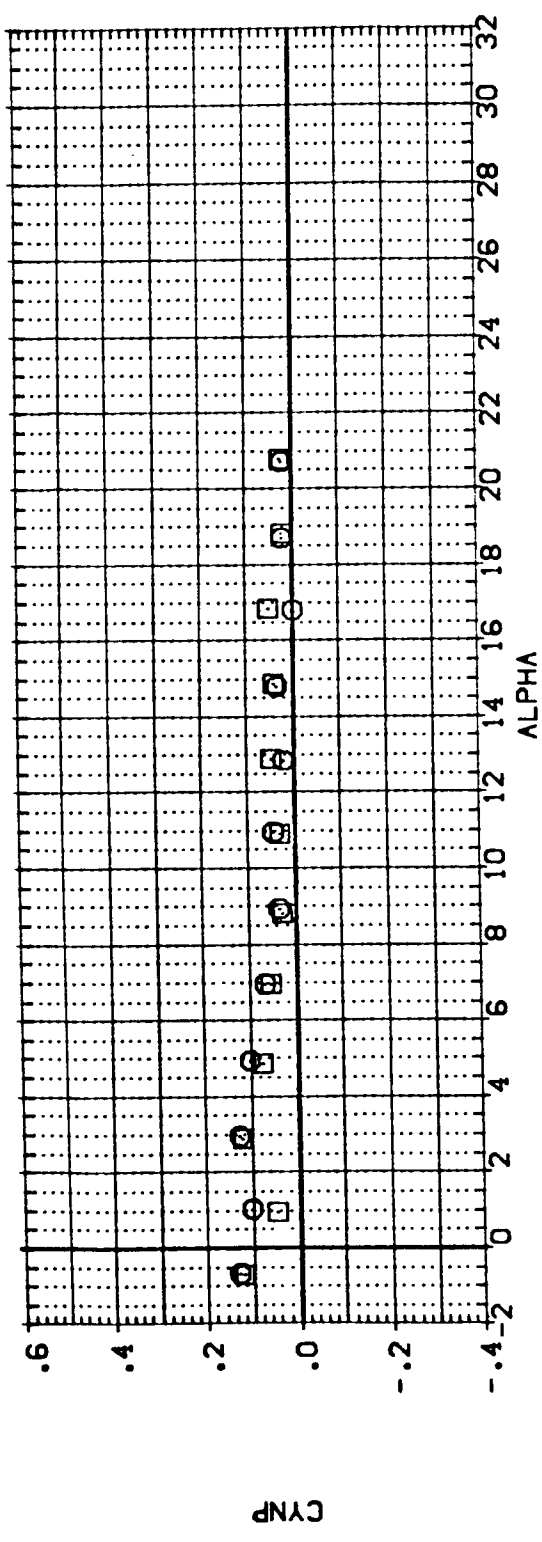


FIGURE 8. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(B)MACH = 1.90



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUDELIR  
 (RPGRO1)      LA-14: ROCKVELL ORB 0898 V/MOD: NOSE (BNV )      1.000      .000      40.000  
 (RPGRO2)      LA-14: ROCKVELL ORB 0898 V/MOD: NOSE (BNVM )      1.000      .000      40.000

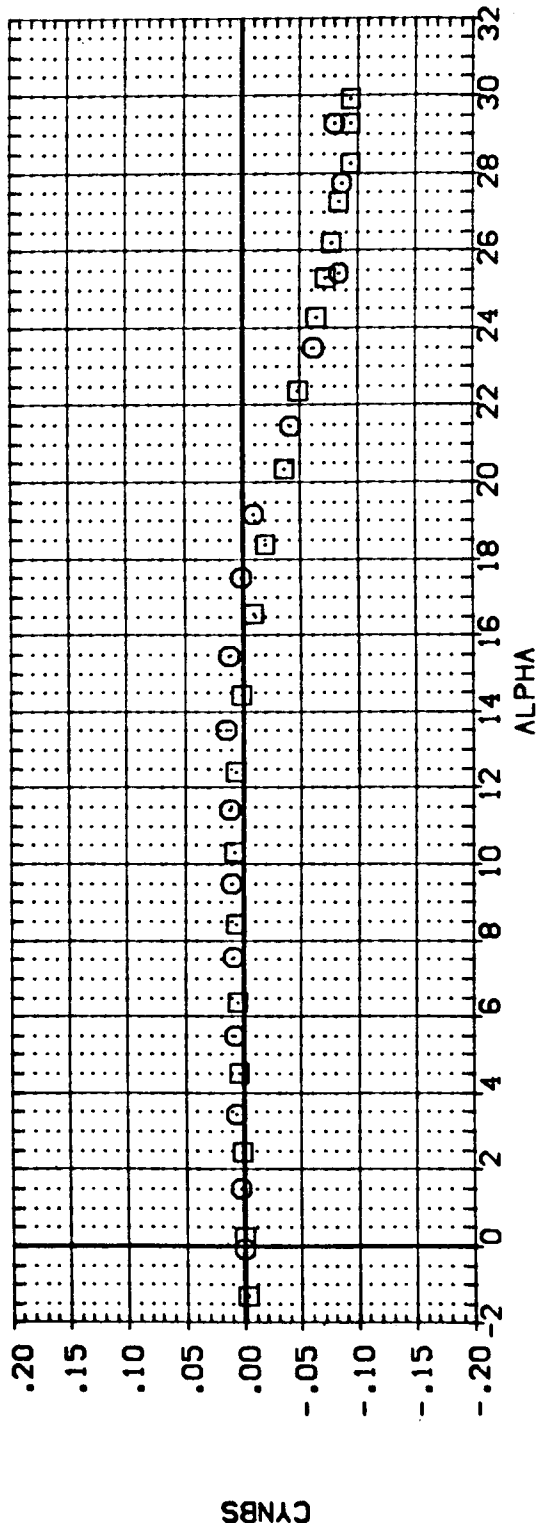
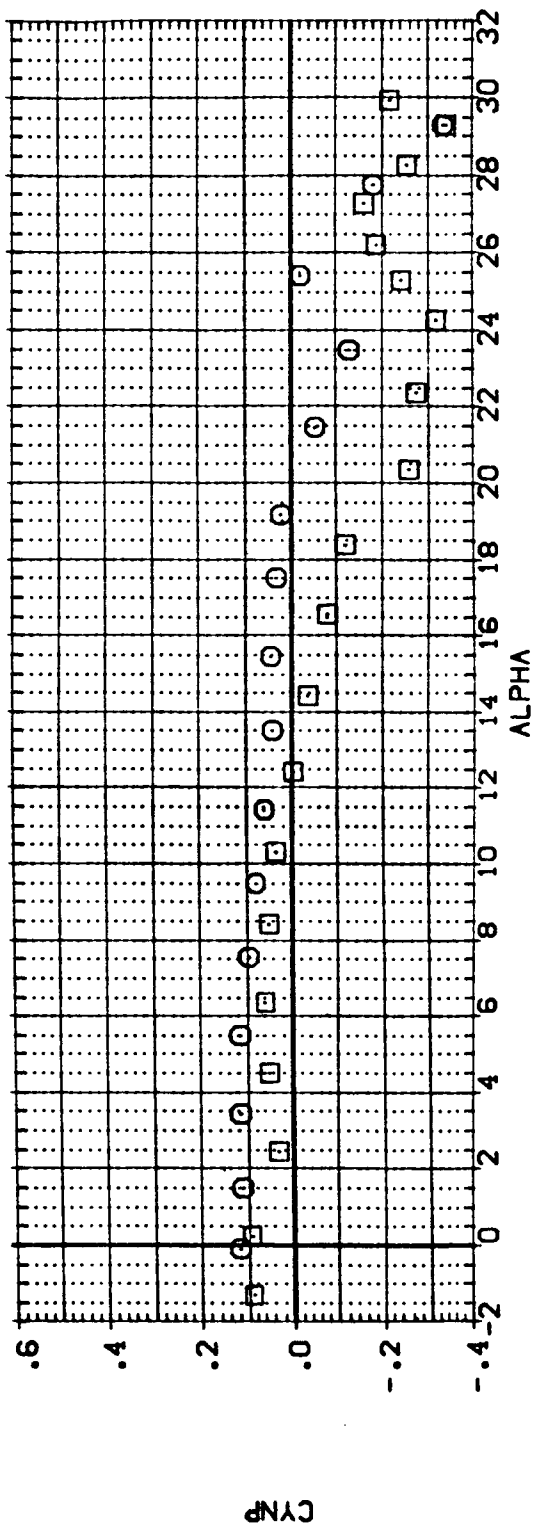


FIGURE 8. EFFECT OF OMS POOS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(C)MACH = 2.36

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 [RPGR01]      DATA NOT AVAILABLE      1.000      .000      40.000  
 [RPGR03]      LA-14, ROCKWELL ORB 0898 V/HOOD, NOSE (BVMH)      1.000      .000      40.000

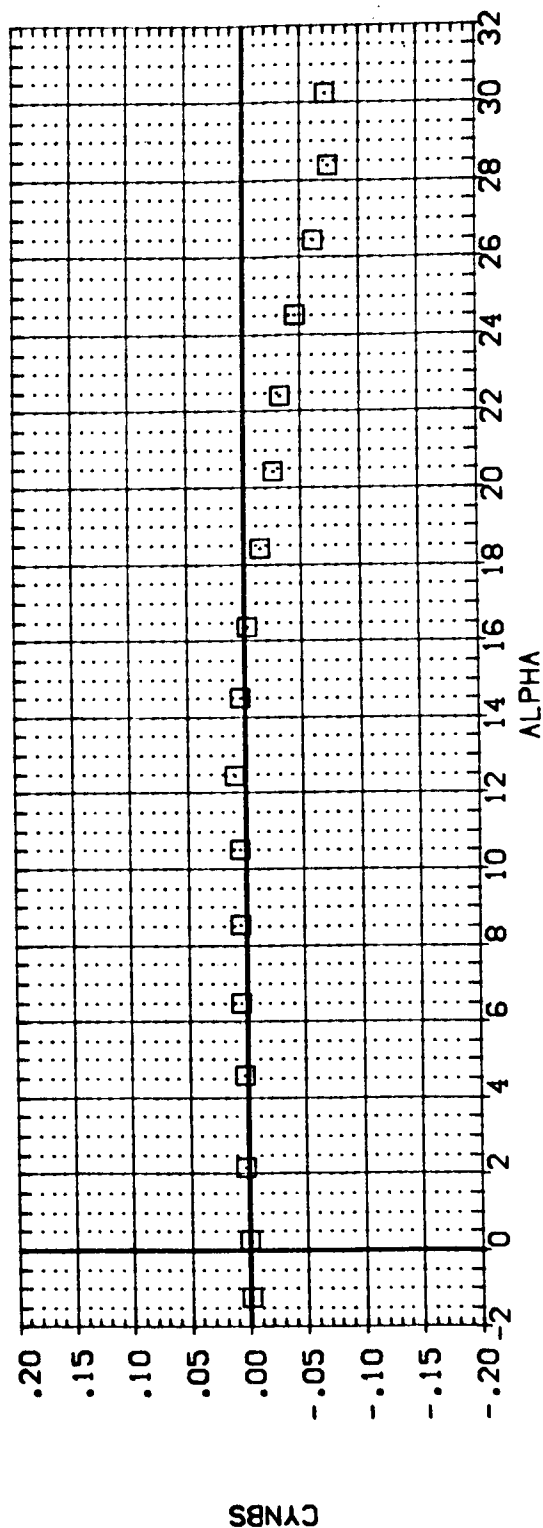
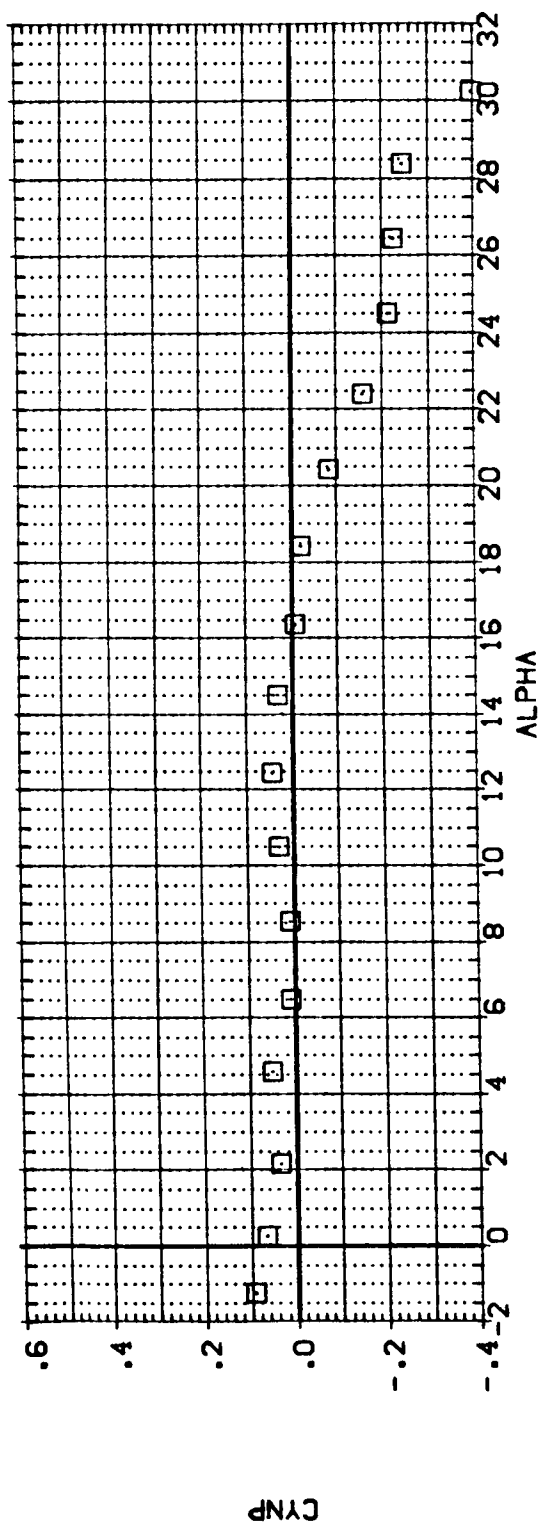


FIGURE 8. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(O)MACH = 2.86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	RUOFLR
[RPGR01]	LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BNV )	1.000	.000	40.000
[RPGR03]	LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BNVH )	1.000	.000	40.000

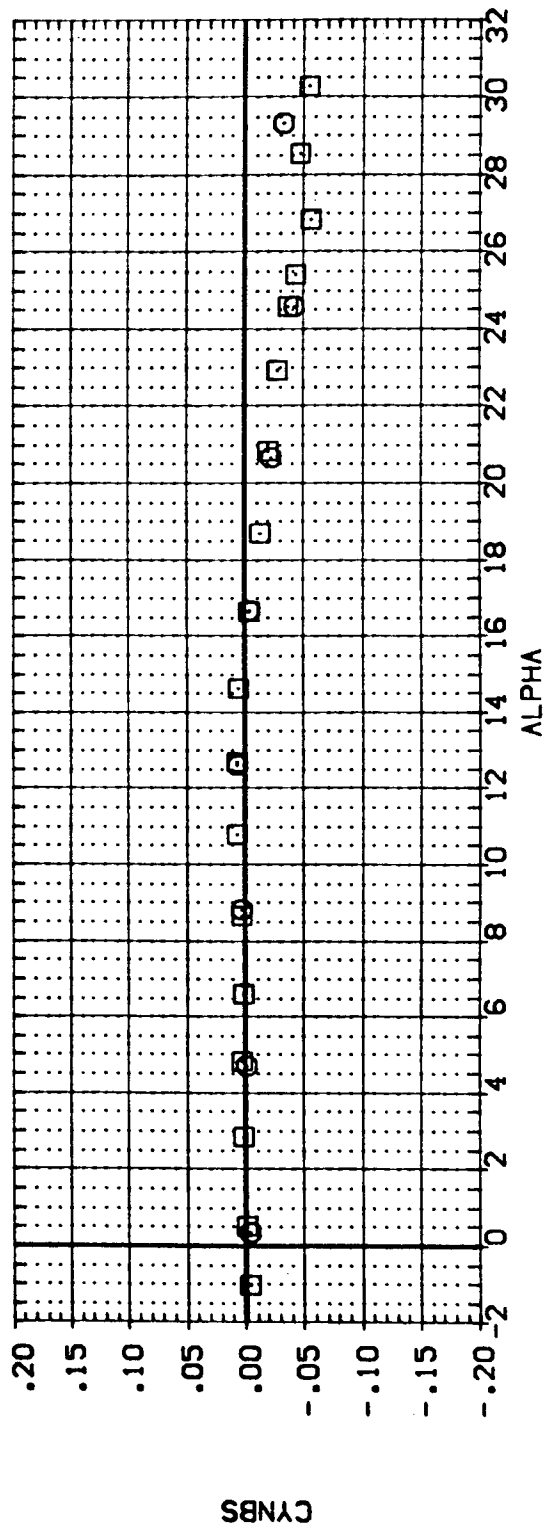
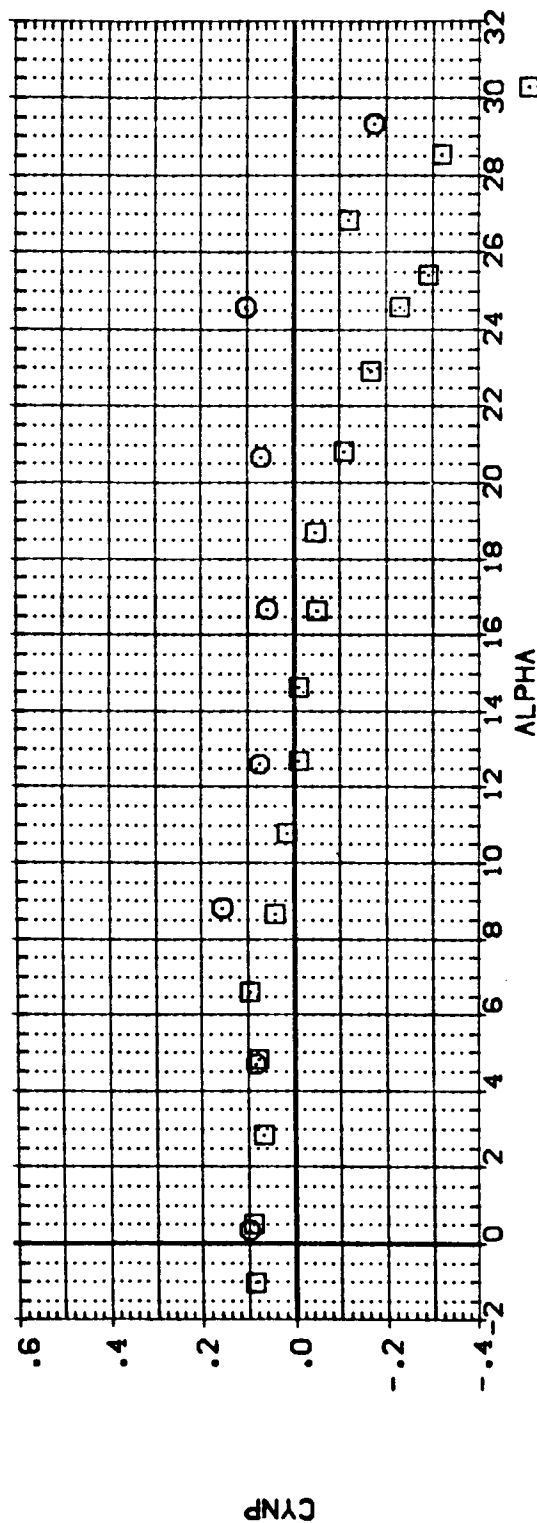


FIGURE 8. EFFECT OF OMS PODS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(E)MACH = 3.96

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR

(RPGRO1)    LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BVM)    1.000    .000    40.000

(RPGRO3)    LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BVM)    1.000    .000    40.000

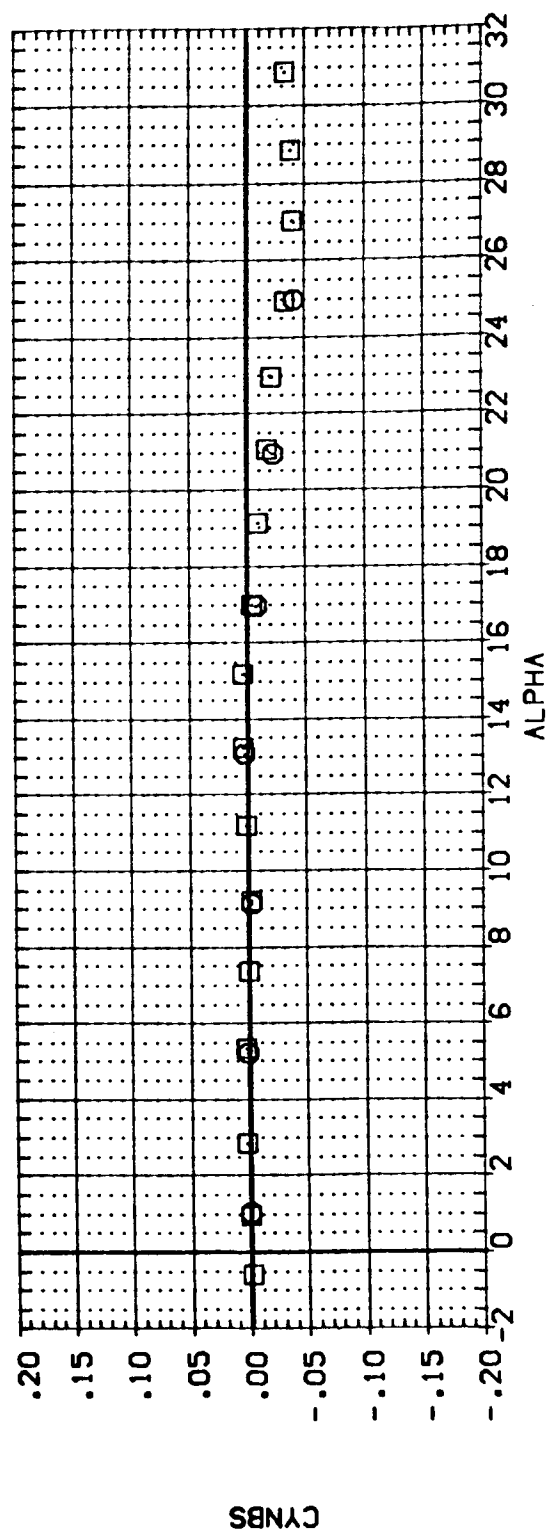
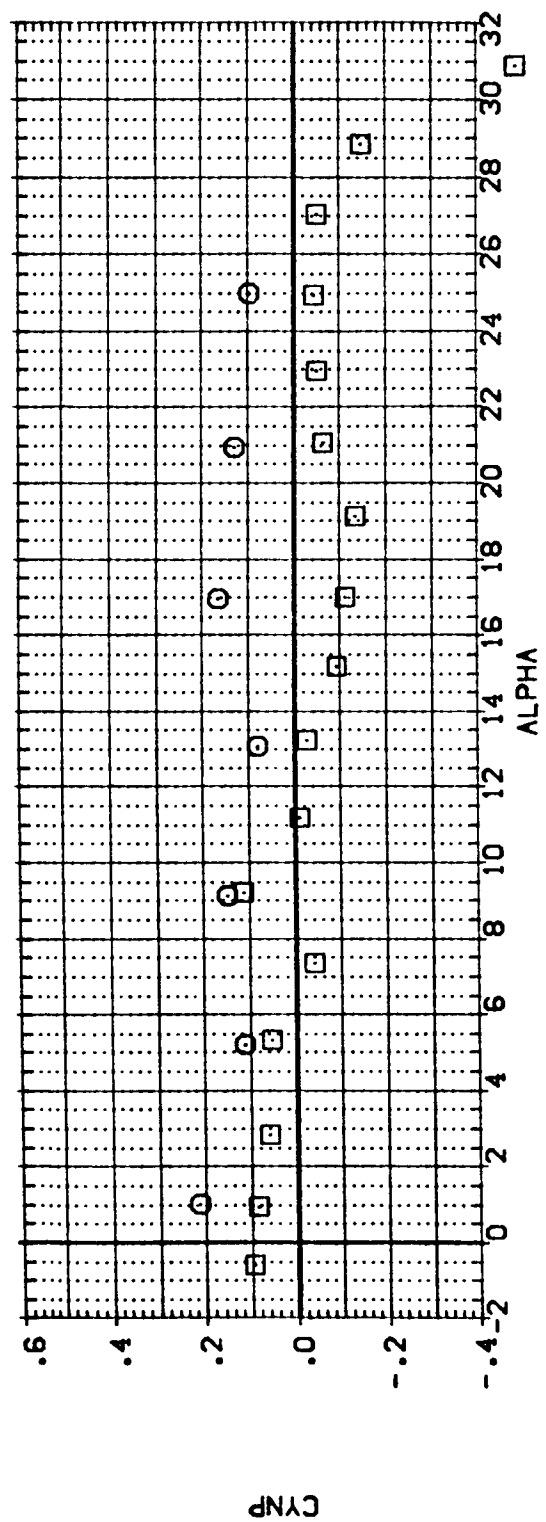


FIGURE 8. EFFECT OF OMS POOS ON DYNAMIC STABILITY PARAMETERS IN ROLL

(F)MACH = 4.63

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 (RPGY02)      LA-14; ROCKWELL ORB D898 V/MOD; NOSE (BV M )      1.000      .000  
 (RPGY03)      LA-14; ROCKWELL ORB D898 V/MOD; NOSE (BVM )      1.000      .000

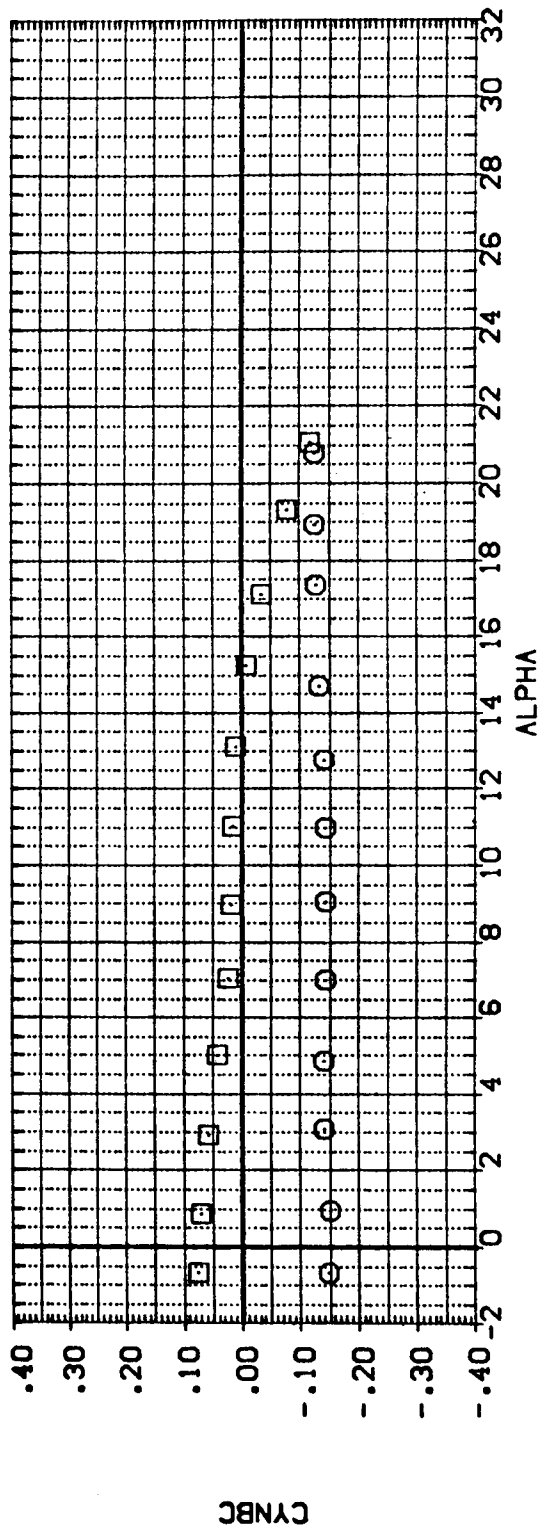
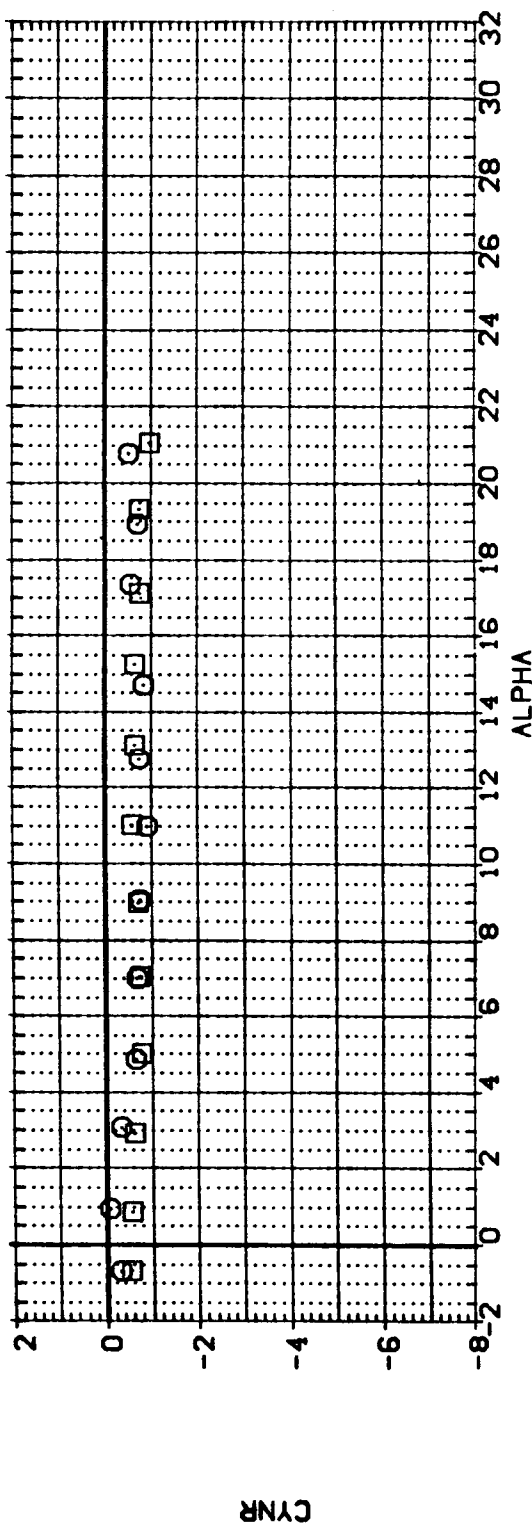


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(A)MACH = 1.90

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUFLR

[RPGV02]      LA-14; ROCKWELL ORB 0899 V/MOD. NOSE (BV M )      1.000      .000      40.000

[RPGV03]      LA-14; ROCKWELL ORB 0899 V/MOD. NOSE (BVVM )      1.000      .000      40.000

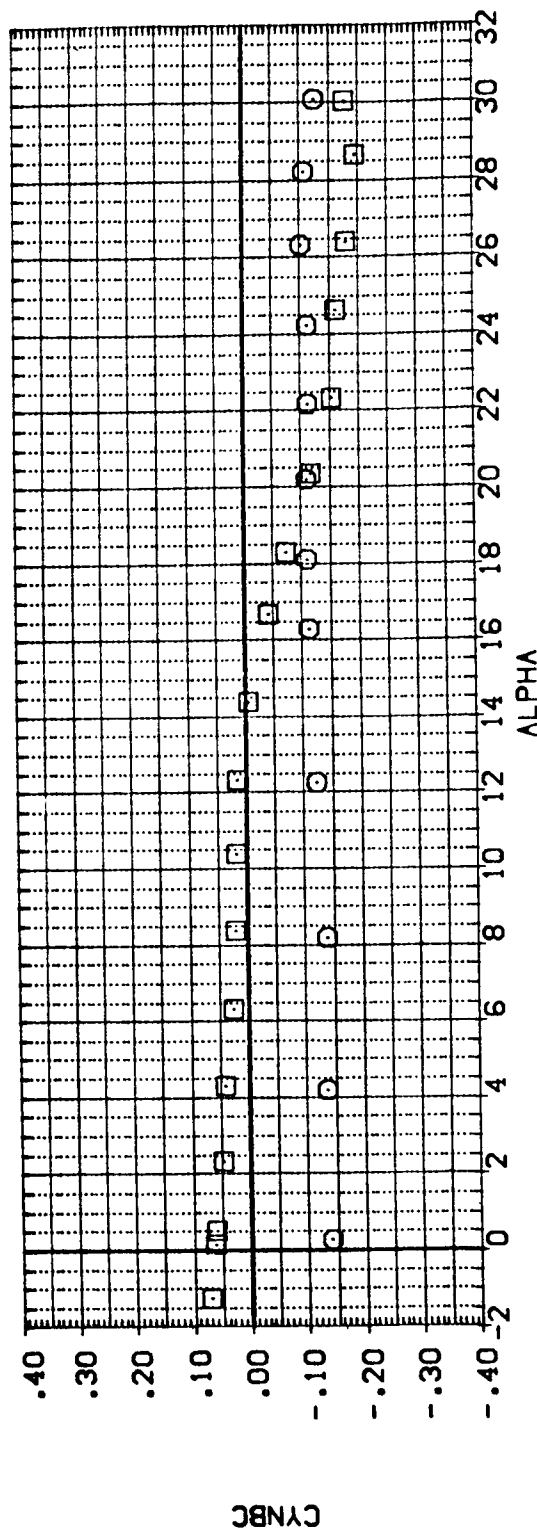
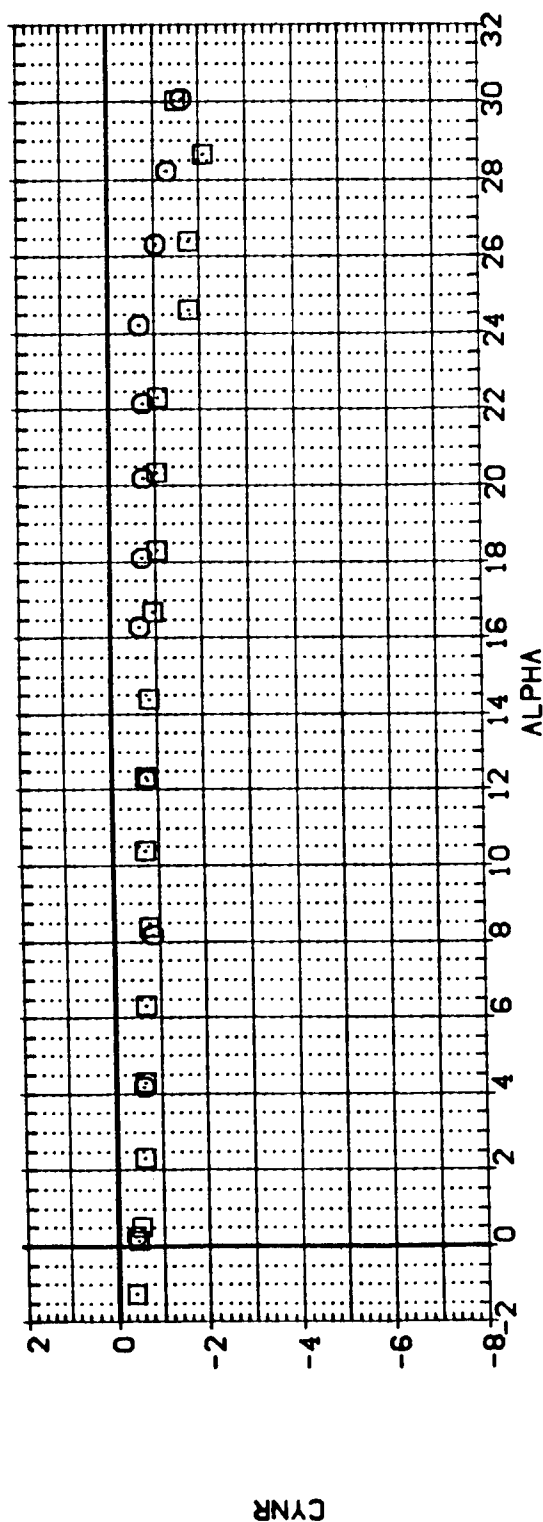


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(B)MACH = 2.36

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR

(RPGV02)      LA-14, ROCKWELL ORB 0898 V/HOO, NOSE (BV M)      1.000      .000      10.000

(RPGV03)      LA-14, ROCKWELL ORB 0898 V/HOO, NOSE (BVH M)      1.000      .000      40.000

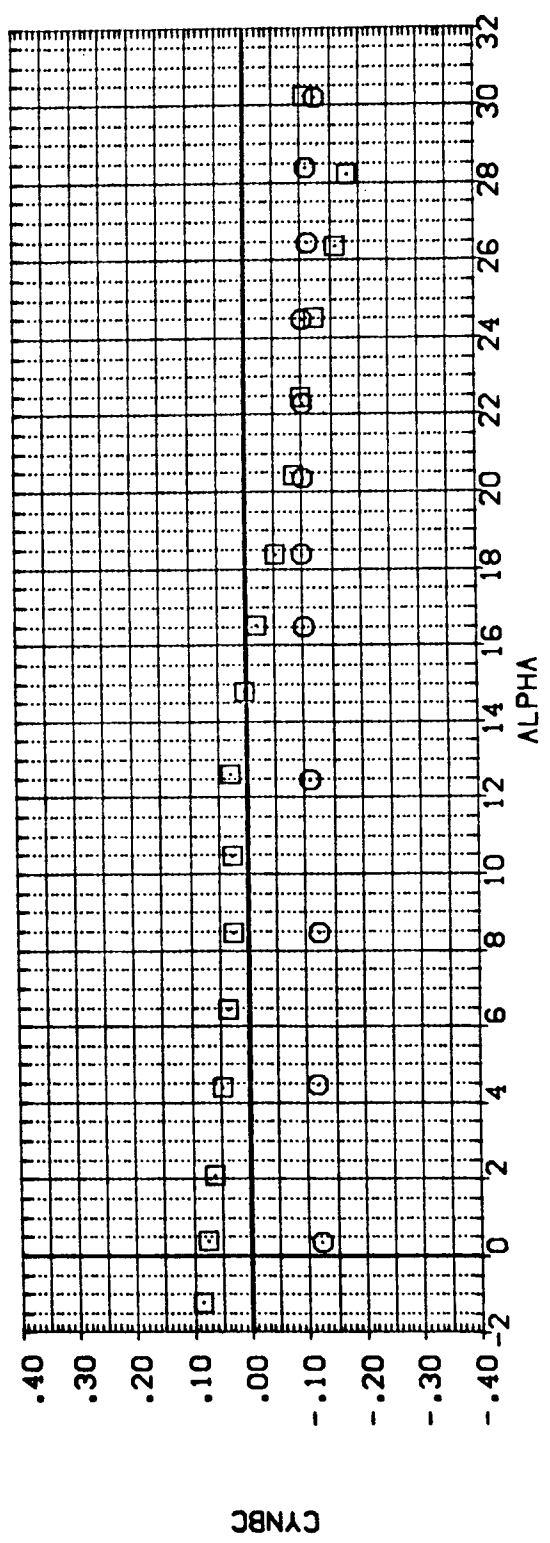
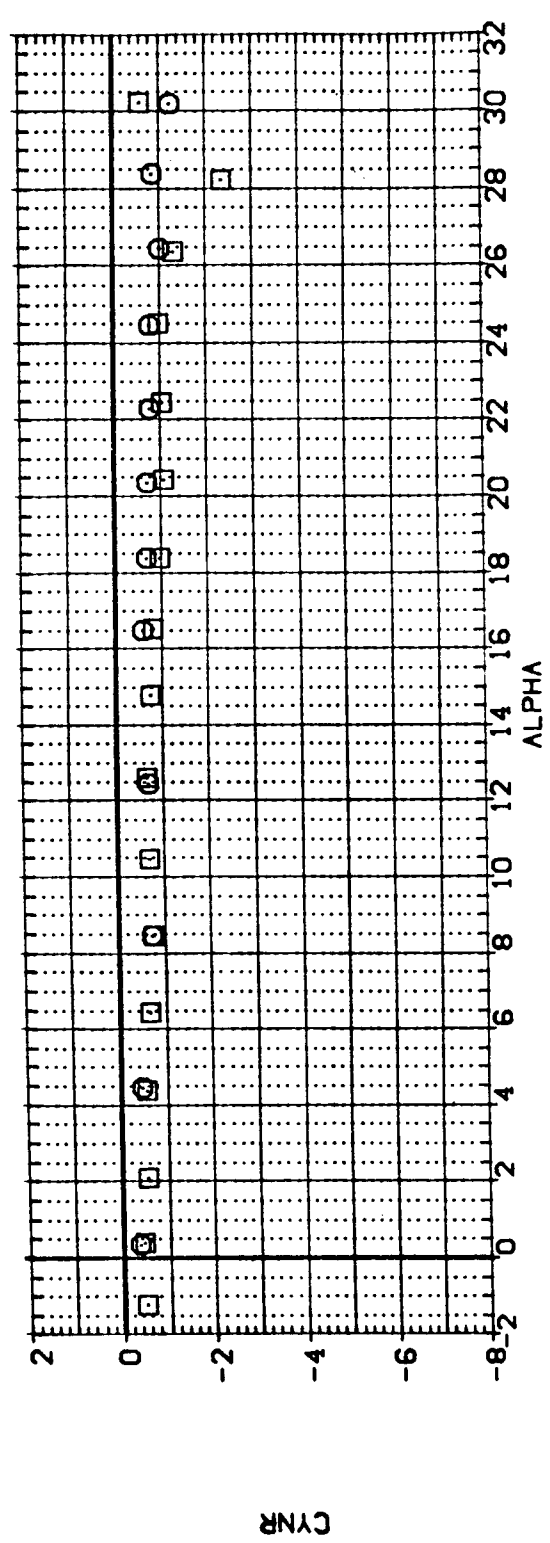


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(C)MACH = 2.86

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUFLR

(RPGY02)      LA-14; ROCKWELL ORB 0638 V/MOD; NOSE (BM M)      1.000      .000      .000

(RPGY03)      LA-14; ROCKWELL ORB 0638 V/MOD; NOSE (BMVM)      1.000      .000      40.000

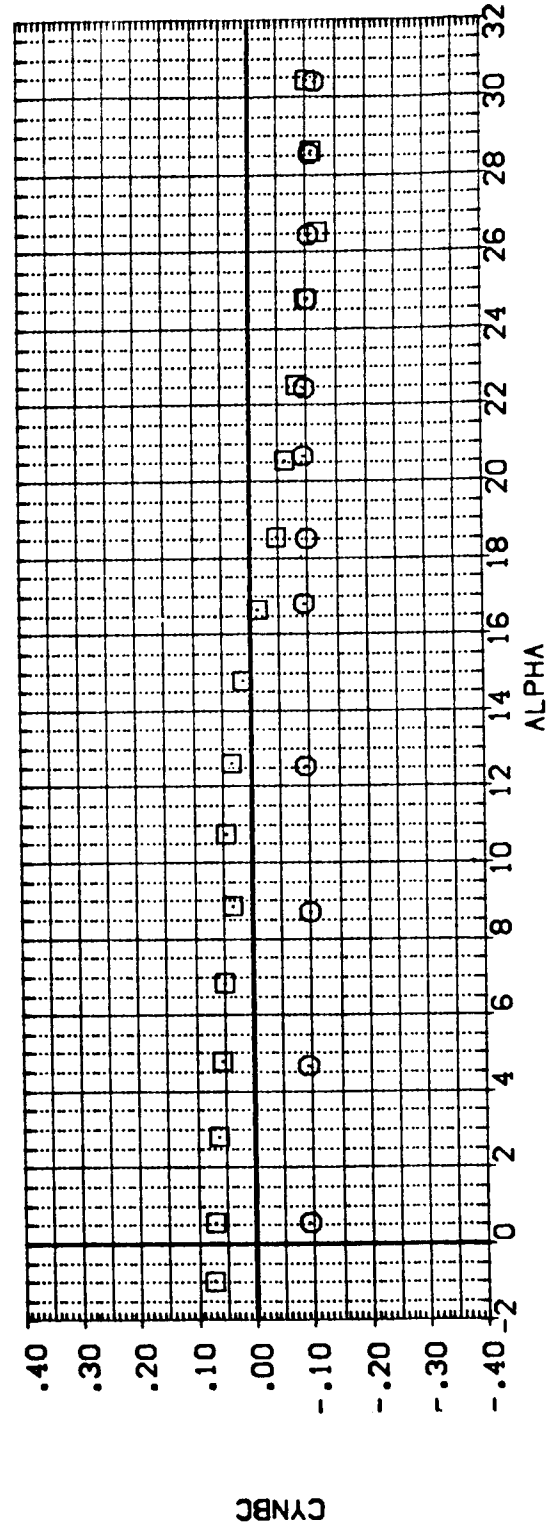
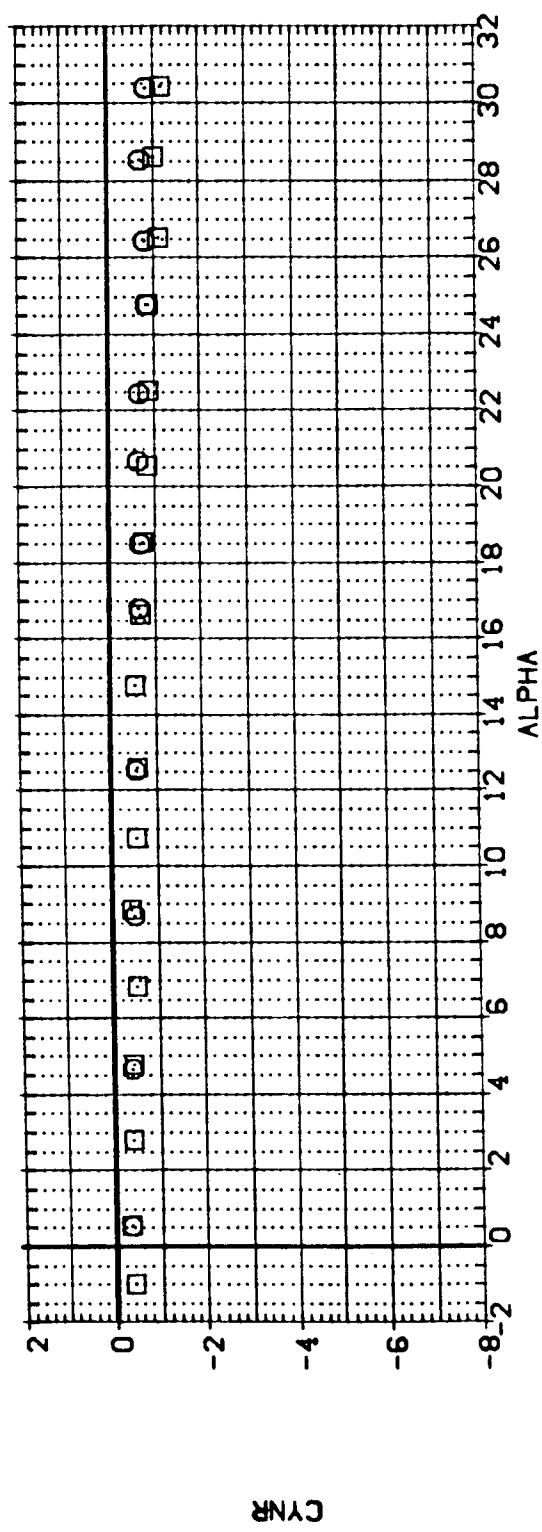


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(D)MACH = 3.96



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUDELTR  
 (RPGV02)      LA-14; ROCKWELL ORB 0898 V/HOO; NOSE (BV M )      1.000      .000  
 (RPGV03)      LA-14; ROCKWELL ORB 0898 V/HOO; NOSE (BV M )      1.000      .000

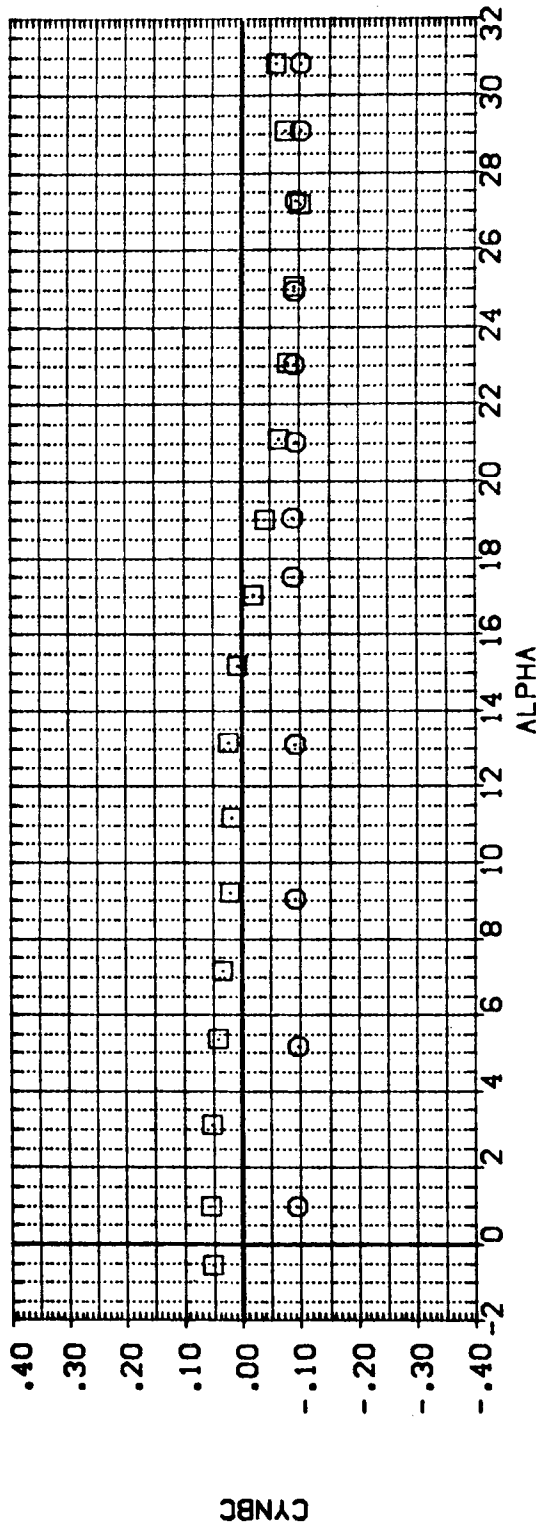
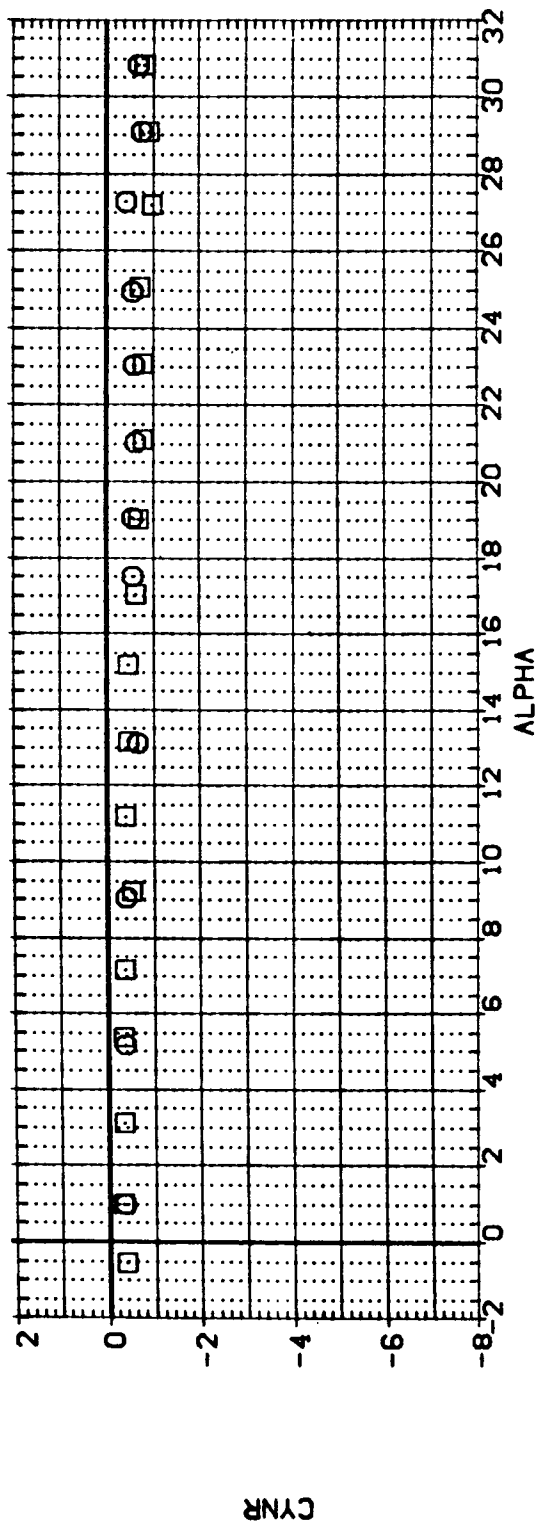


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(E)MACH = 4.63

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR

[RPGV02]    LA-14; ROCKWELL ORB 0898 V/100; NOSE (BW M)    1.000    .000

[RPGV03]    LA-14; ROCKWELL ORB 0898 V/100; NOSE (BVM)    1.000    40.000

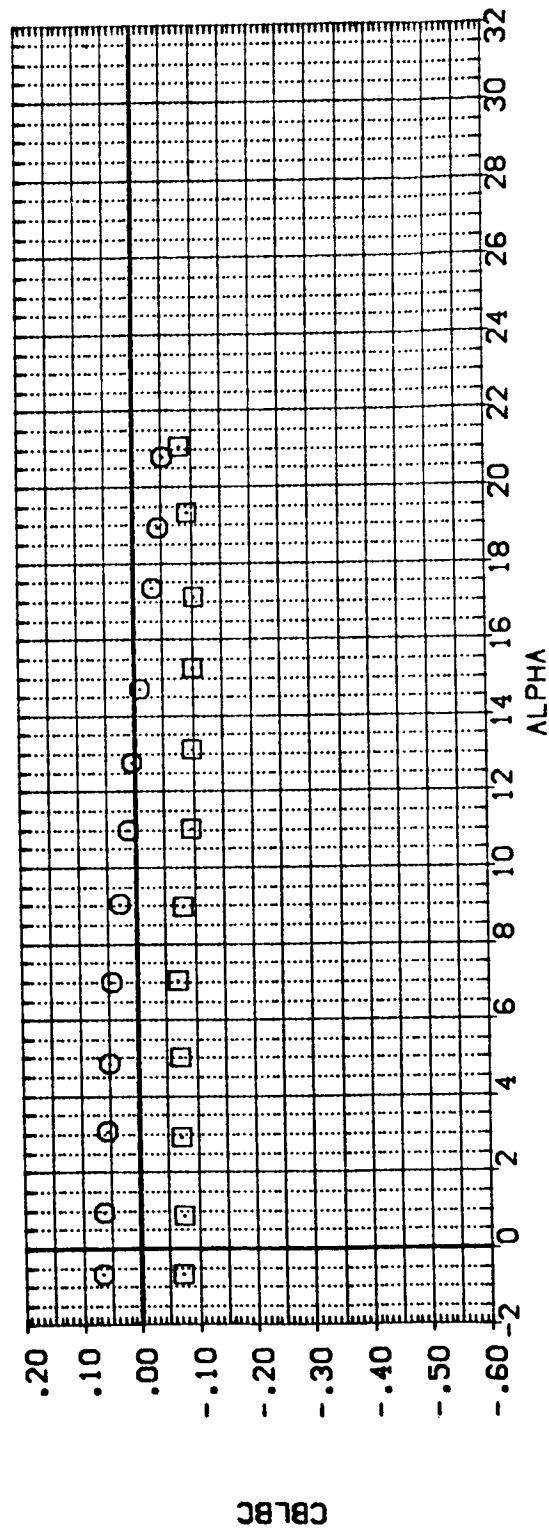
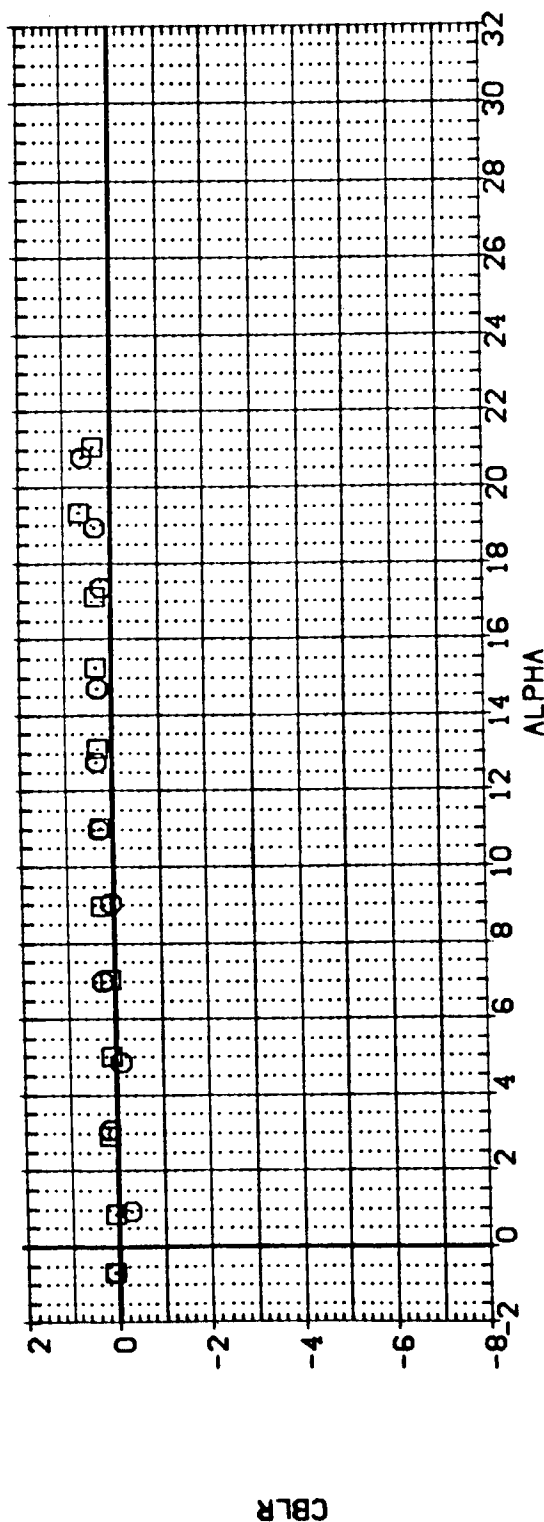


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(A)MACH = 1.90

DATA SET SYMBOL: CONFIGURATION DESCRIPTION: CG-LOC ELEVTR RUOFLR  
 (RPGY02) LA-14; ROCKWELL ORB 0858 V/MOD; NOSE (BV M ) 1.000 .000  
 (RPGY03) LA-14; ROCKWELL ORB 0858 V/MOD; NOSE (BV M ) 1.000 .000 40.000

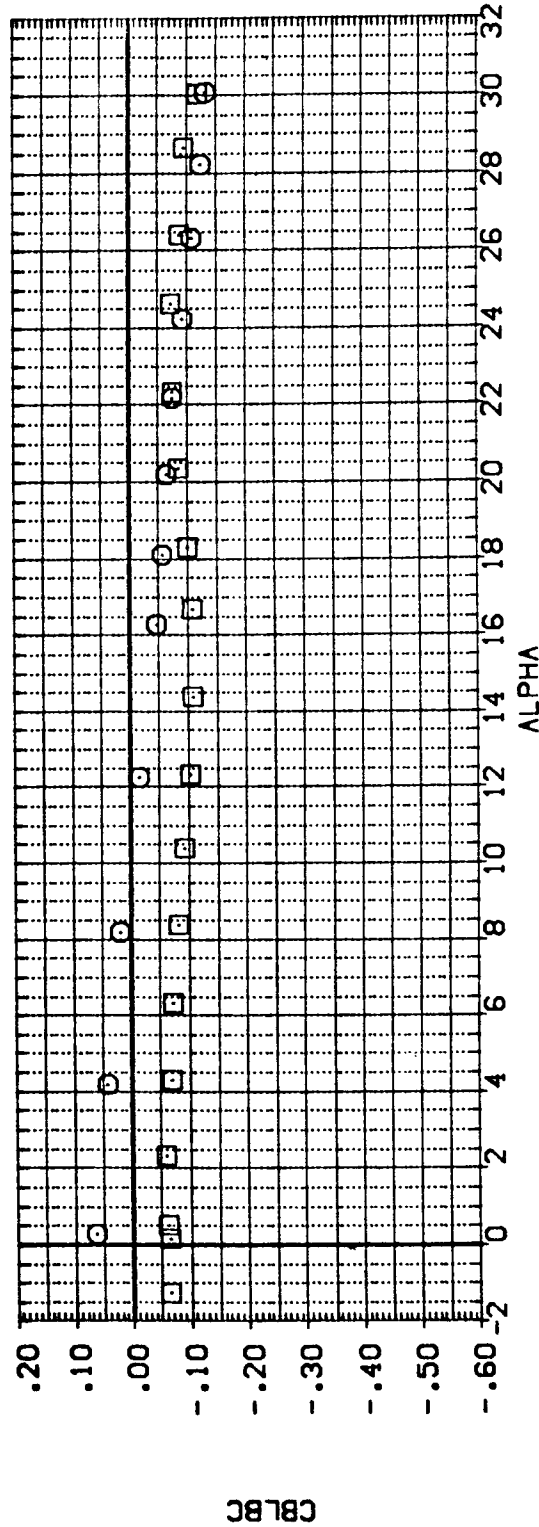
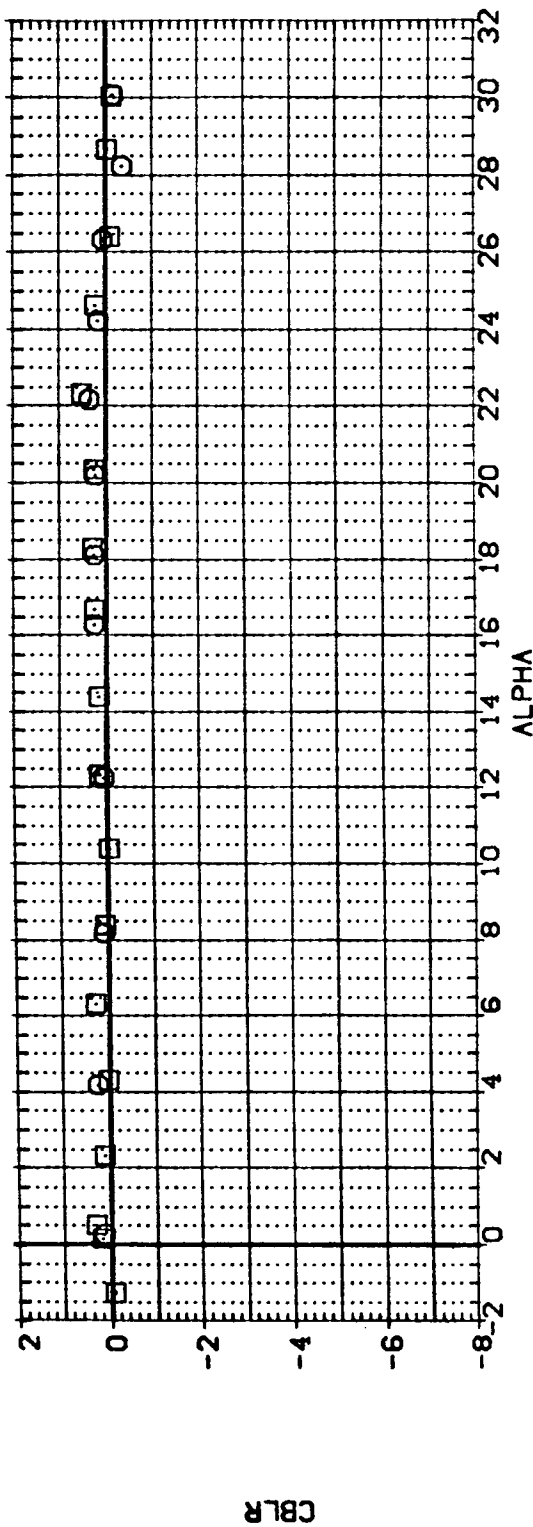


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(B)MACH = 2.36

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUDELTR

[ RFGY02 ]    LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BV M )    1.000    .000

[ RFGY03 ]    LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BV M )    1.000    40.000

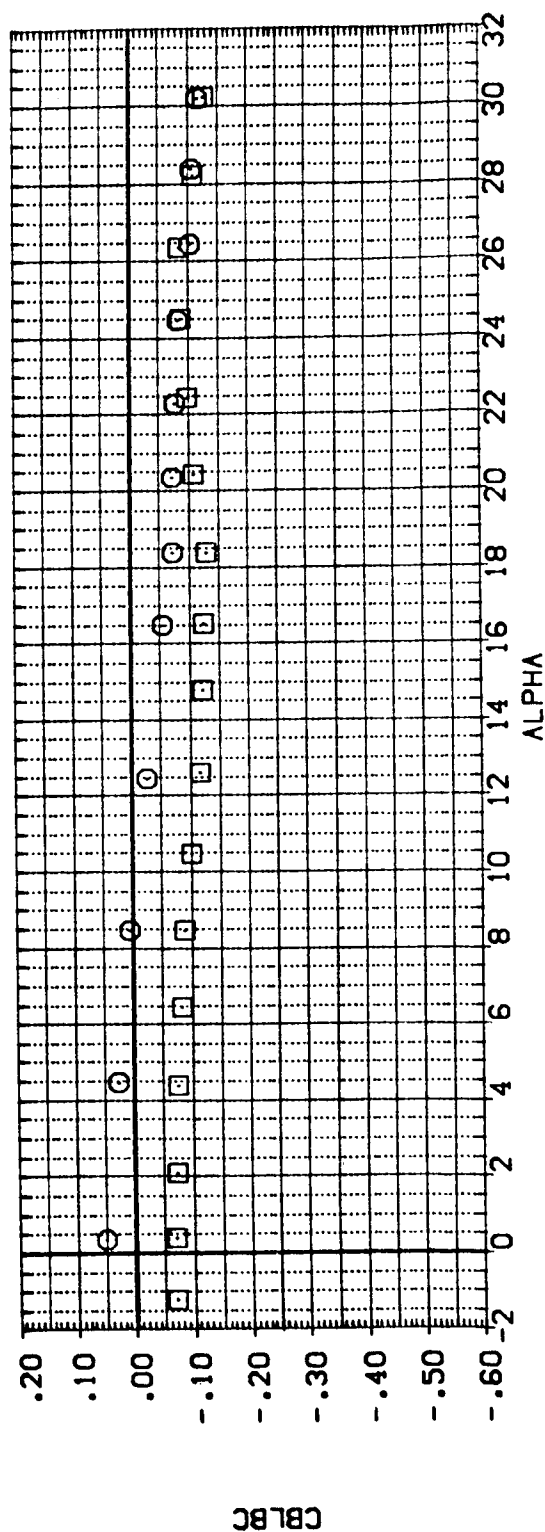
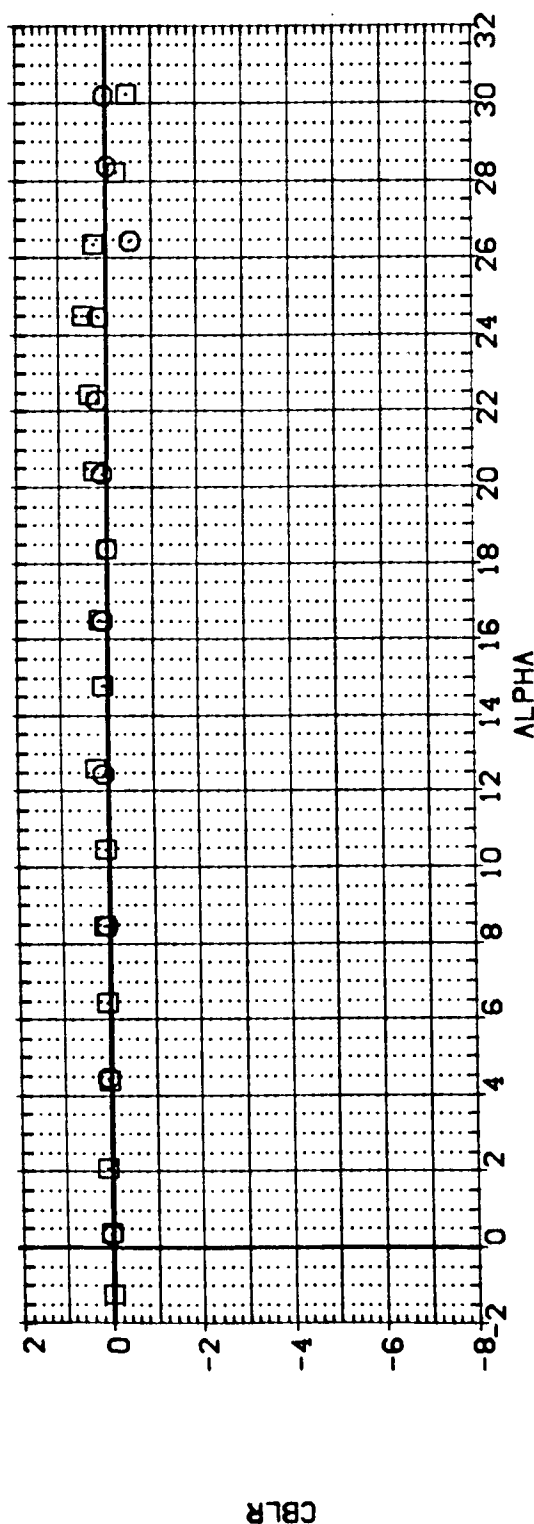


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(C)MACH = 2.86

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUDELTR

(RPGY02)      LA-14. ROCKWELL DRB 0898 V/MOD. NOSE (BV M )      1.000      .000      .000

(RPGY03)      LA-14. ROCKWELL DRB 0898 V/MOD. NOSE (BVVM )      1.000      .000      40.000

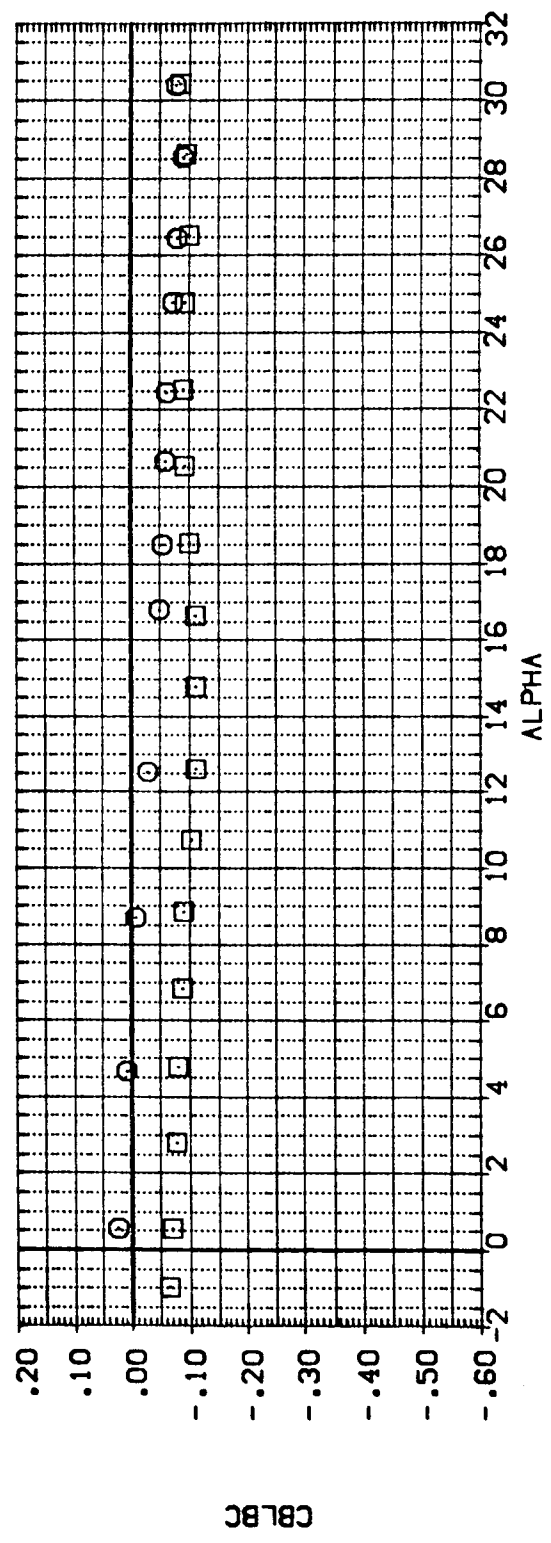
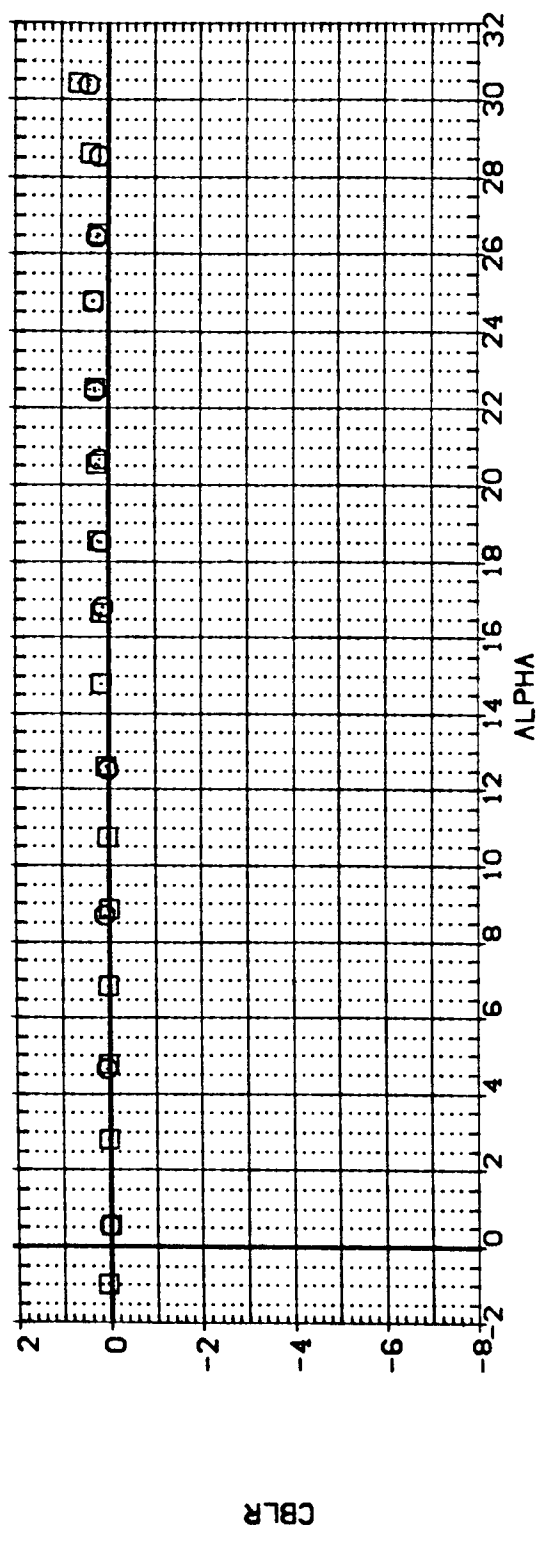


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(D)MACH = 3.96

PAGE 65

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR

(RPGY02)    LA-14, ROCKWELL ORB DB98 V/MOD, NOSE (BV M)    1.000    .000    .000

(RPGY03)    LA-14, ROCKWELL ORB DB98 V/MOD, NOSE (BVH)    1.000    .000    40.000

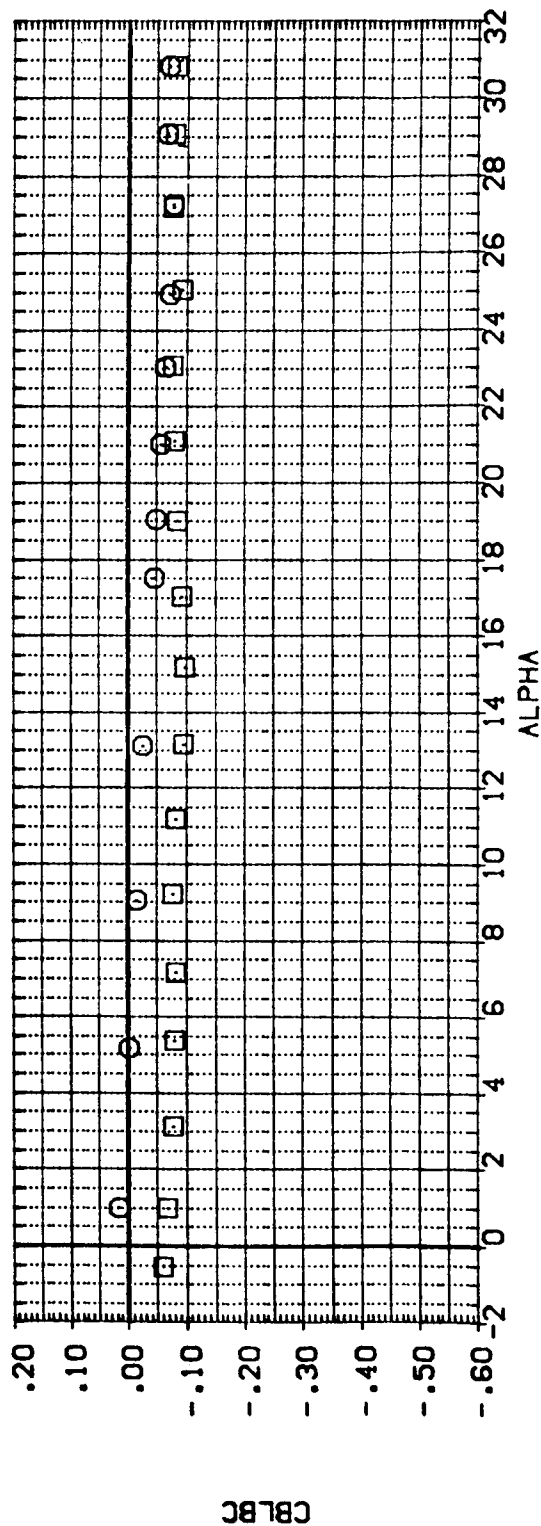
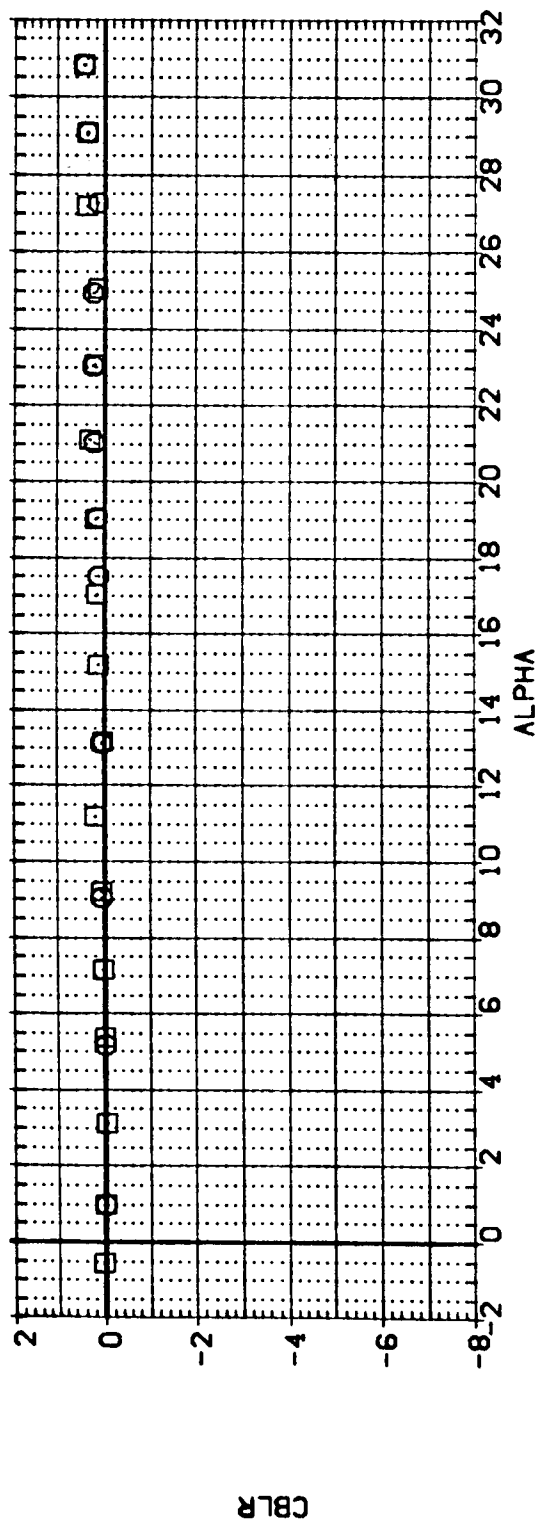


FIGURE 9. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN YAW

(E)MACH = 4.63

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 (RPGRO2)      LA-14, ROCKWELL DRB 0698 V/MOD, NOSE (BV M)      1.000      .000      .000  
 (RPGRO3)      LA-14, ROCKWELL DRB 0698 V/MOD, NOSE (BVVM)      1.000      .000      40.000

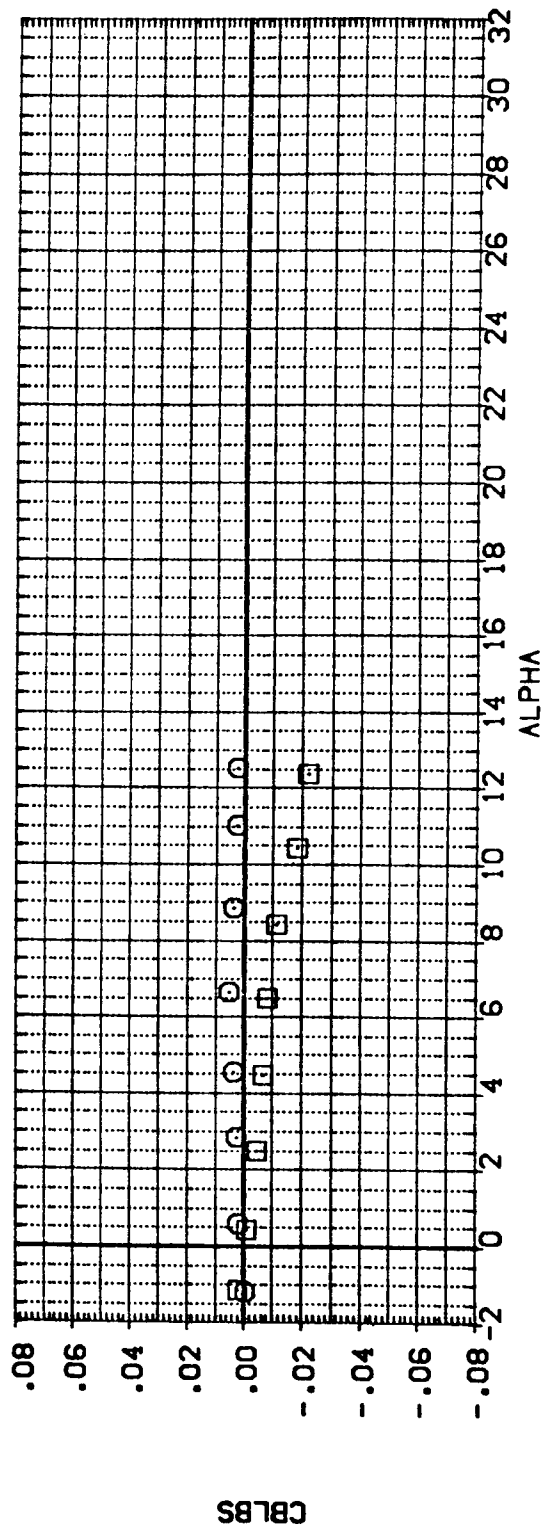
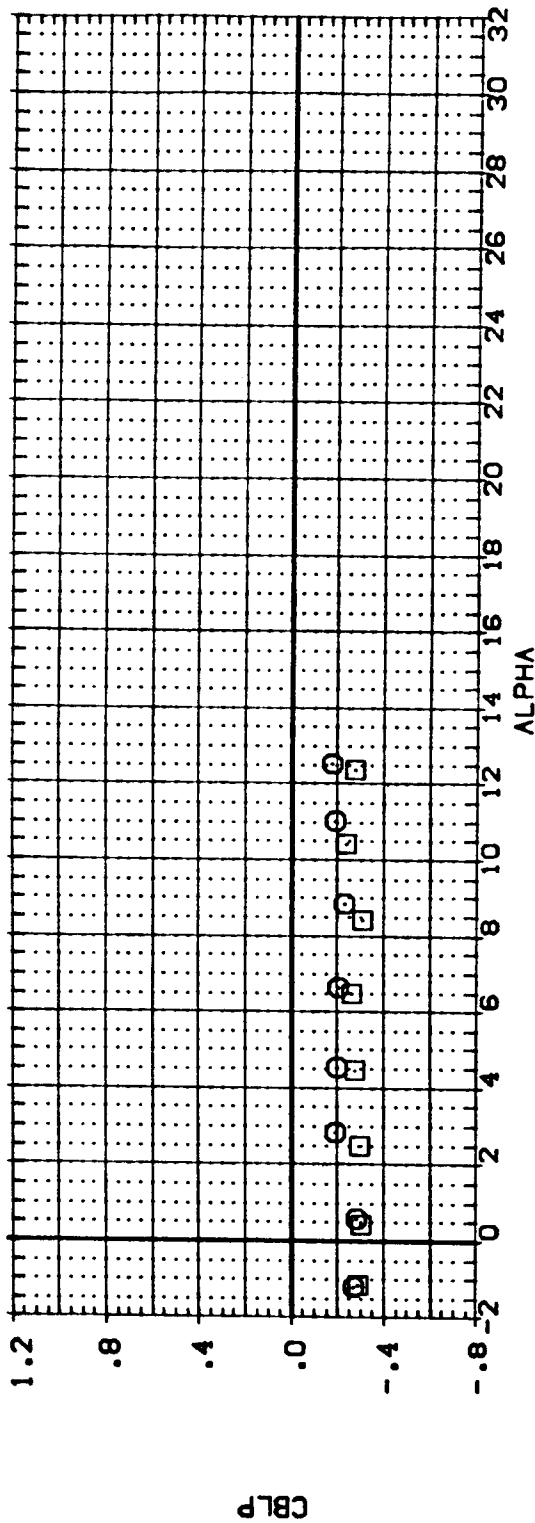


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

CAJ MACH = 1.60

DATA SET SYMBOL. CONFIGURATION DESCRIPTION CG-LOC ELEVTR RUDEL R

(RPG002) LA-14, ROCKWELL ORB 0938 V/MOD, NOSE (BW M) 1.000 .000 40.000

(RPG003) LA-14, ROCKWELL ORB 0938 V/MOD, NOSE (BW M) 1.000 .000 40.000

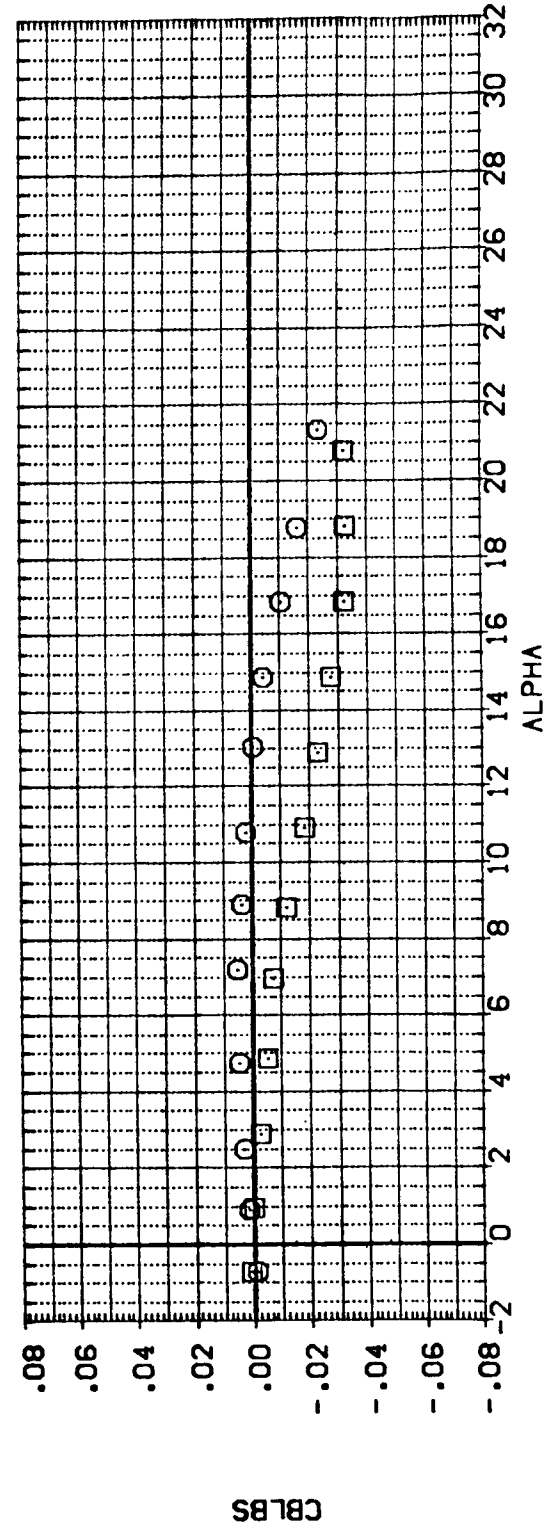
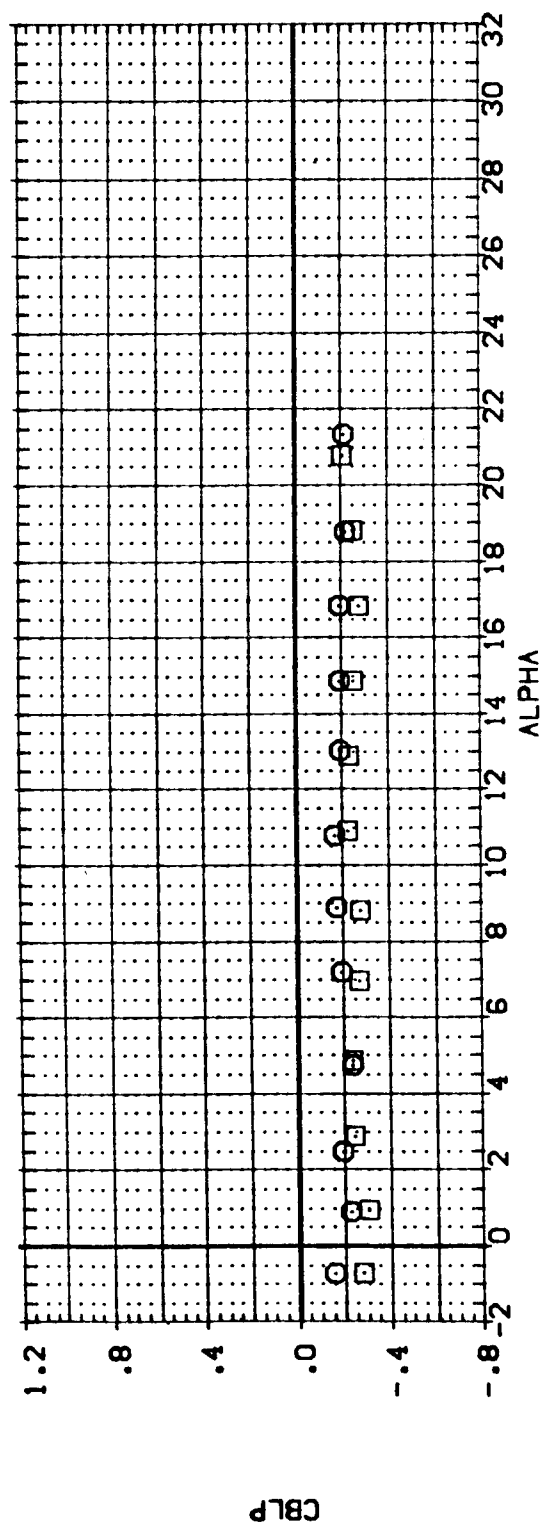


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(B)MACH = 1.90



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUDELFR  
 (RPGR02)    LA-14; ROCKWELL CRB 0898 V/MOD. NOSE (BV M )    1.000    .000  
 (RPGR03)    LA-14; ROCKWELL CRB 0898 V/MOD. NOSE (BV M )    1.000    40.000

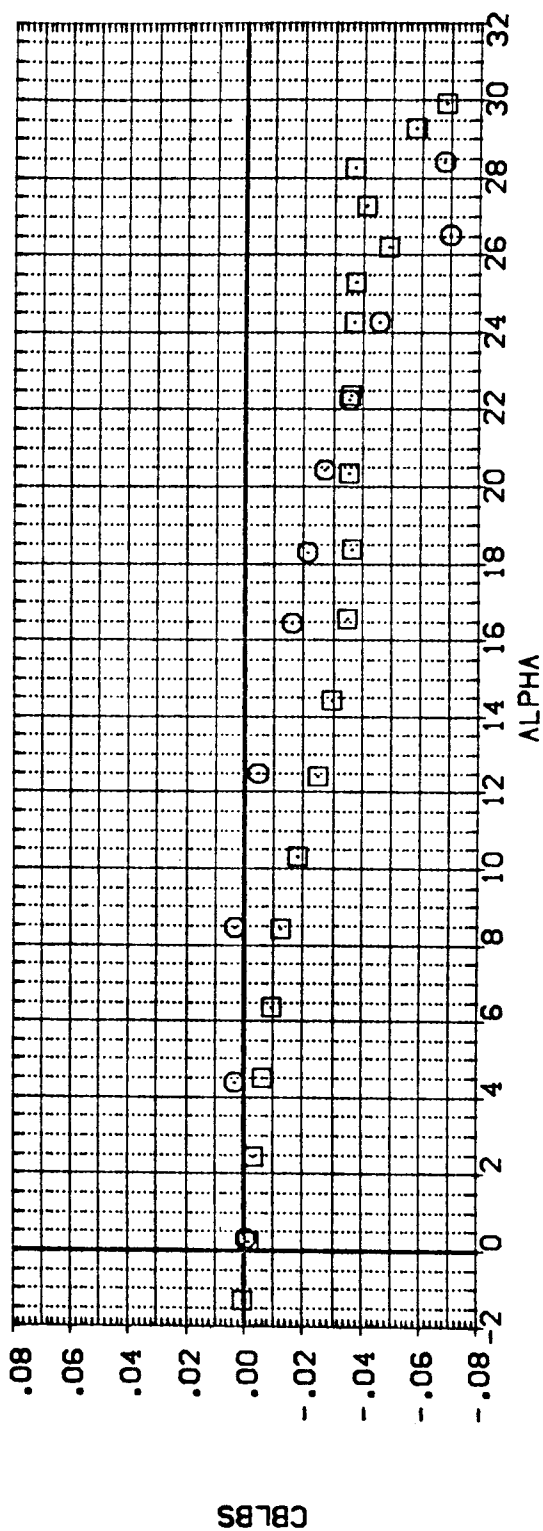
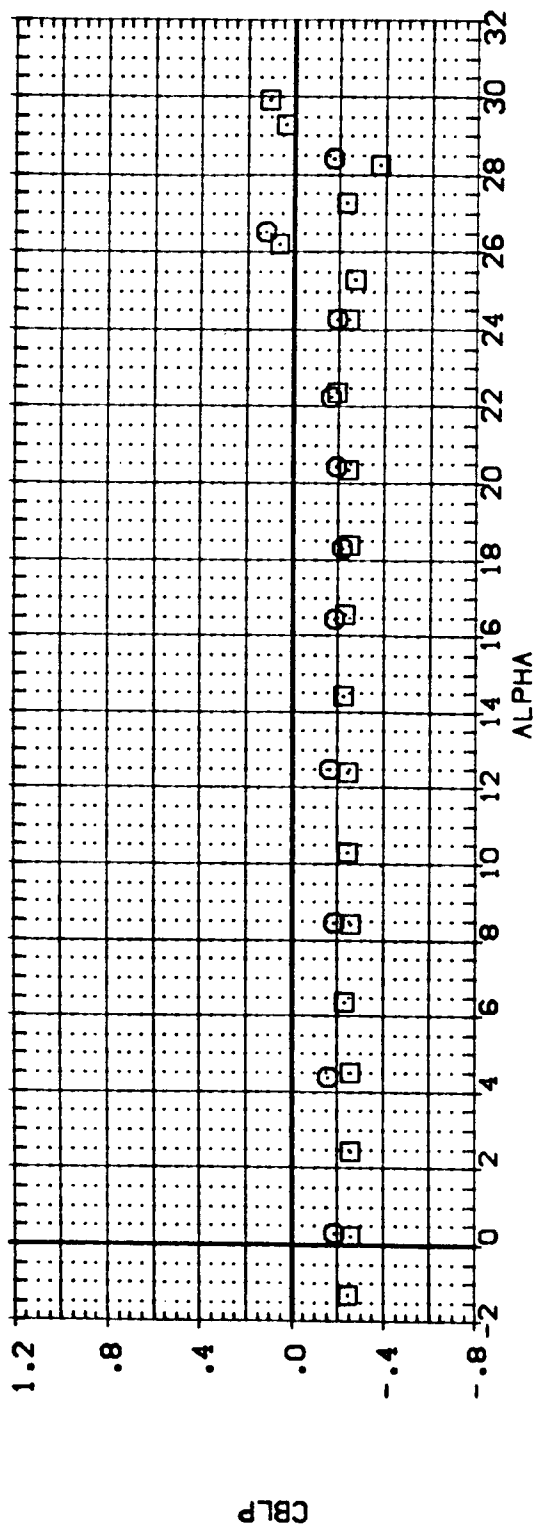


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(C)MACH = 2.36

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 (RPGRO2)    LA-14, ROCKWELL    QRB    Q888    V/MOD, NOSE (BV M )    1.000    .000  
 (RPGRO3)    LA-14, ROCKWELL    QRB    Q888    V/MOD, NOSE (BV M )    1.000    40.000

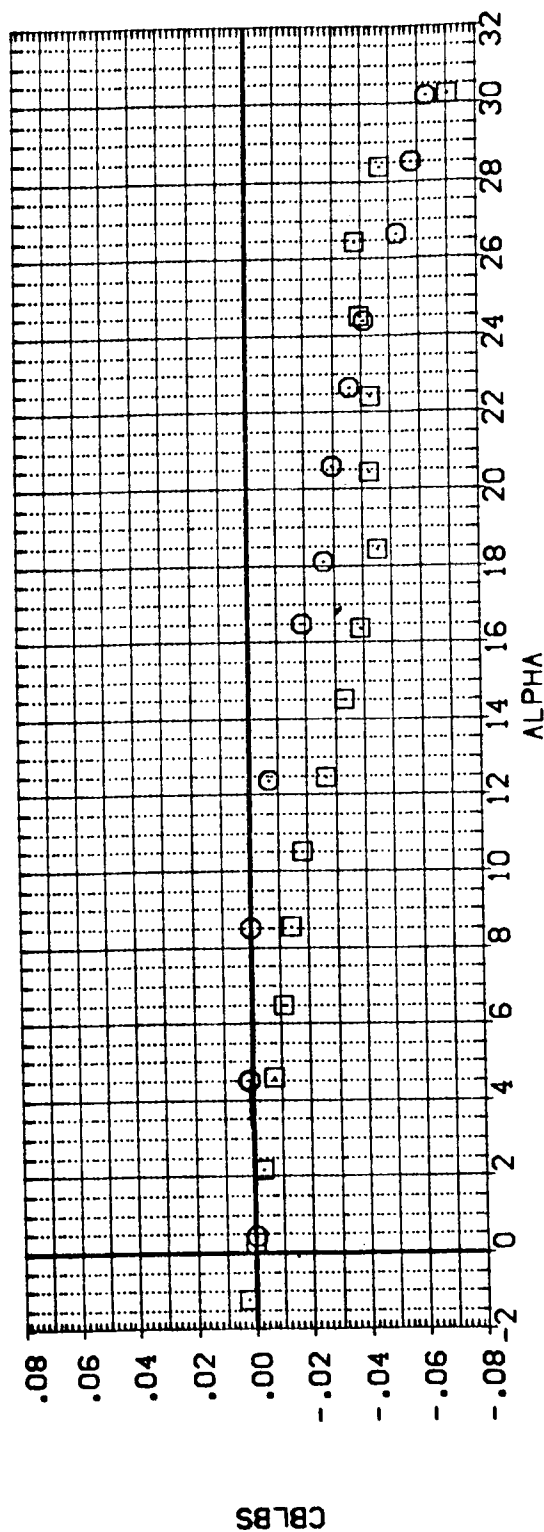
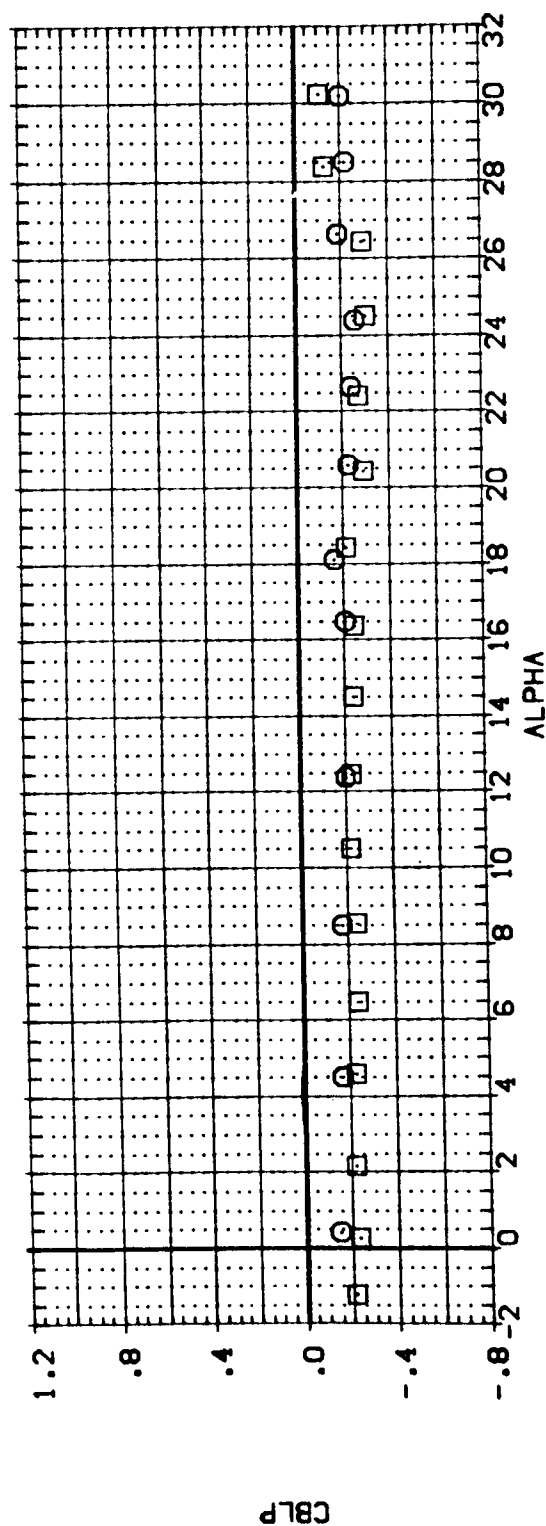


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(C)MACH = 2.86

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUDEL R

(RPG002)      LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BV M )      1.000      .000      40.000

(RPG003)      LA-14, ROCKWELL ORB 0899 V/MOD, NOSE (BV M )      1.000      .000      40.000

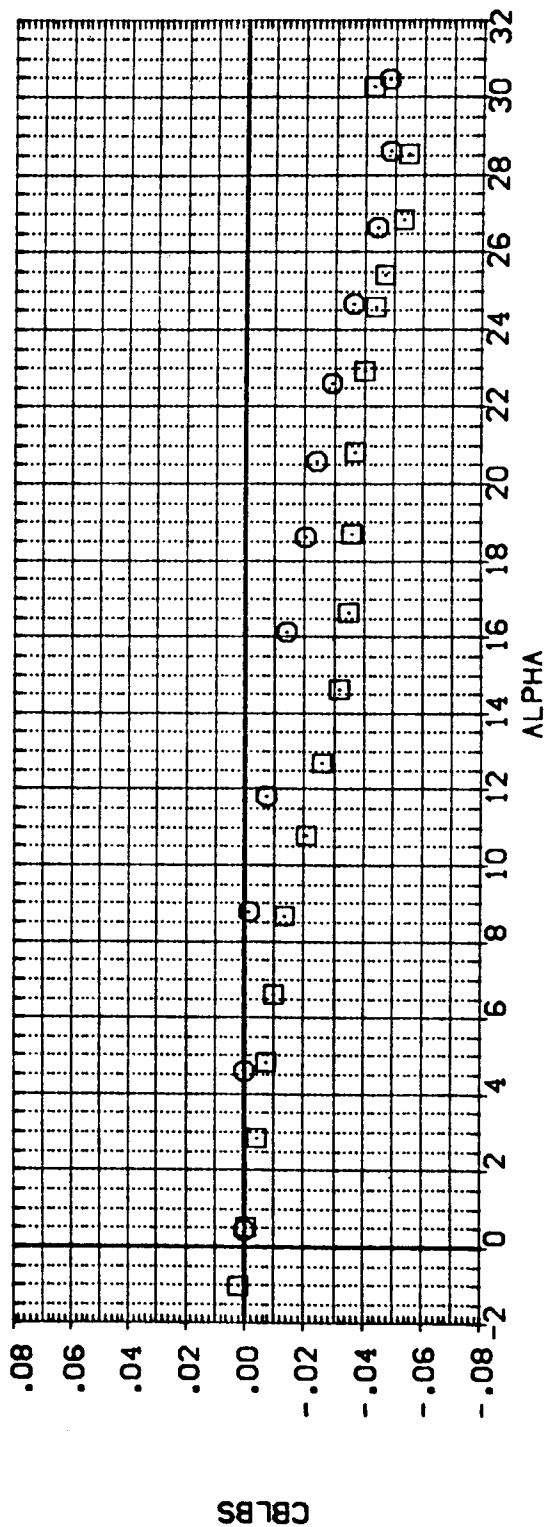
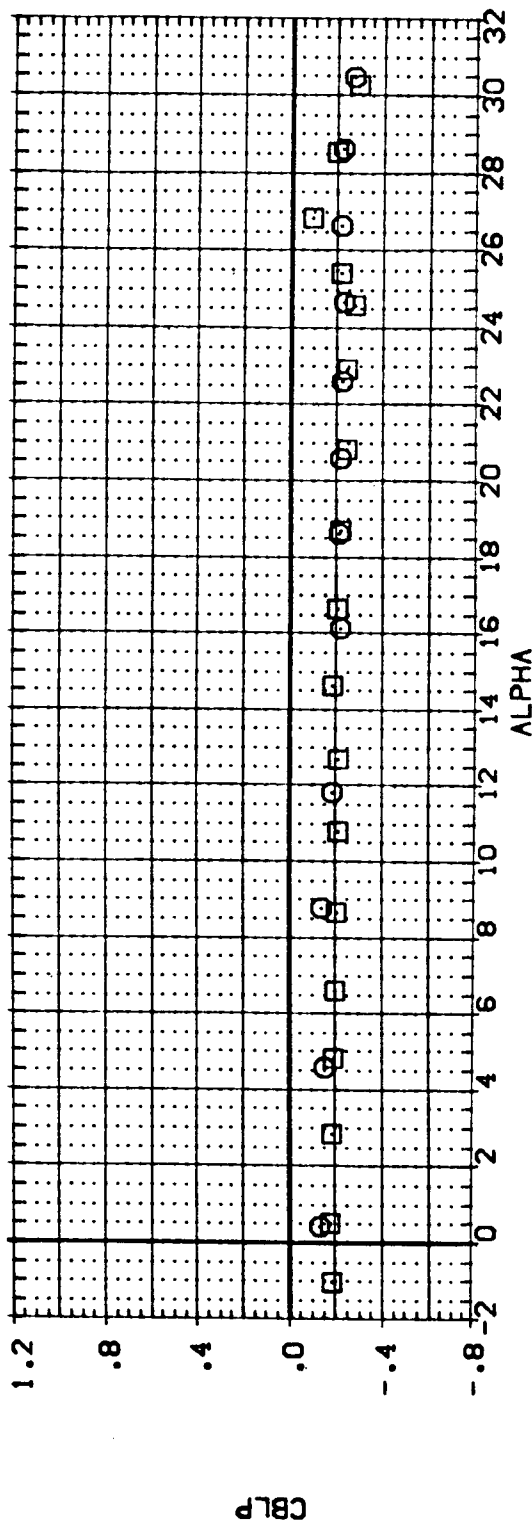


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(E)MACH = 3.96

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 (RPG002)    LA-14; ROCKWELL ORB 0898 V/HOO; NOSE (BV M )    1.000    .000  
 (RPG003)    LA-14; ROCKWELL ORB 0898 V/HOO; NOSE (BVVM )    1.000    40.000

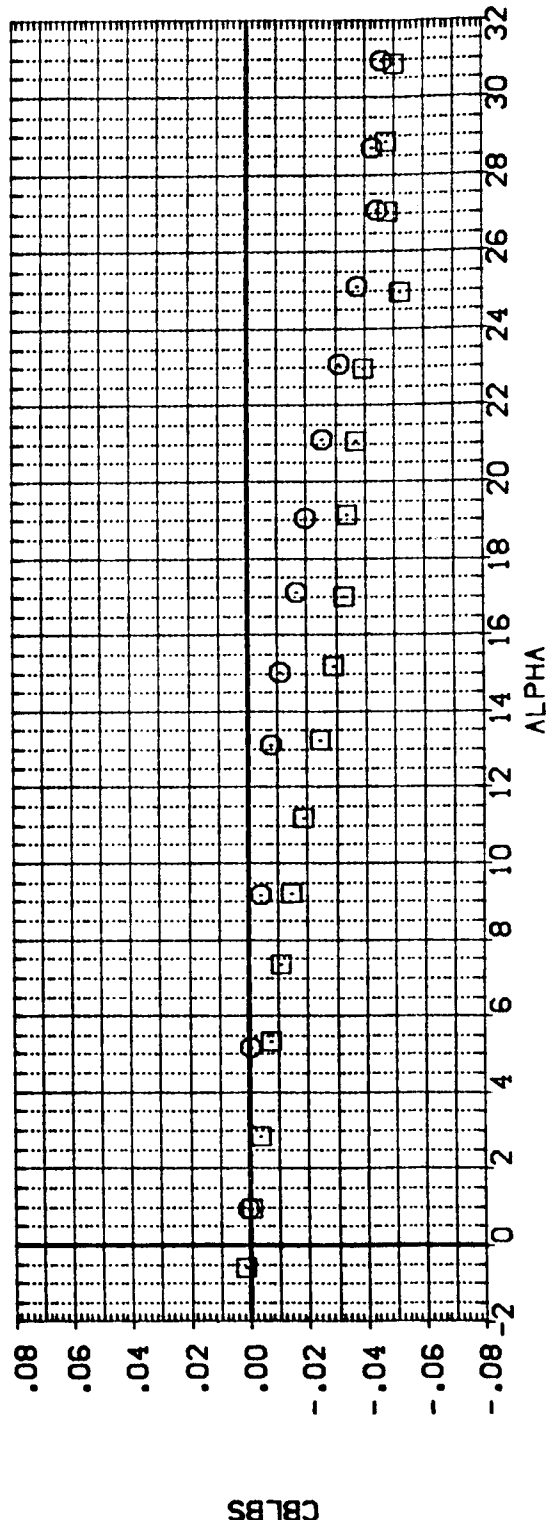
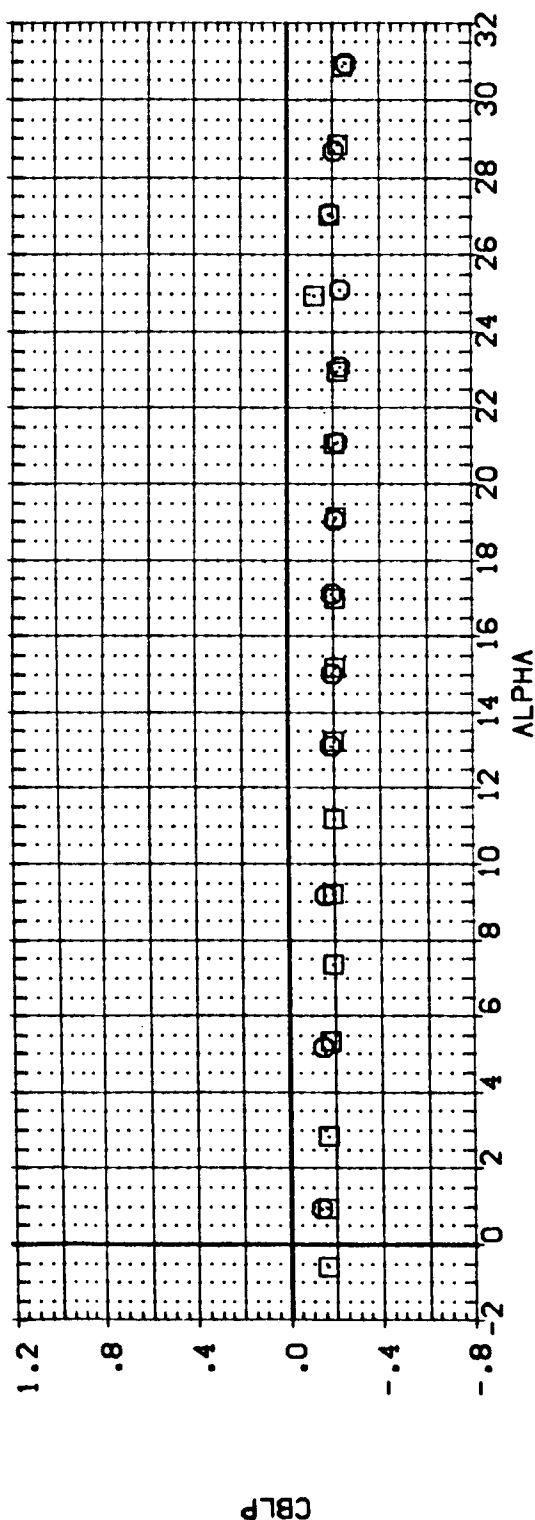


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(F)MACH = 4.63

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUDELTR

(RPG002)    LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BV M )    1.000    .000    .000

(RPG003)    LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BV M )    1.000    .000    40.000

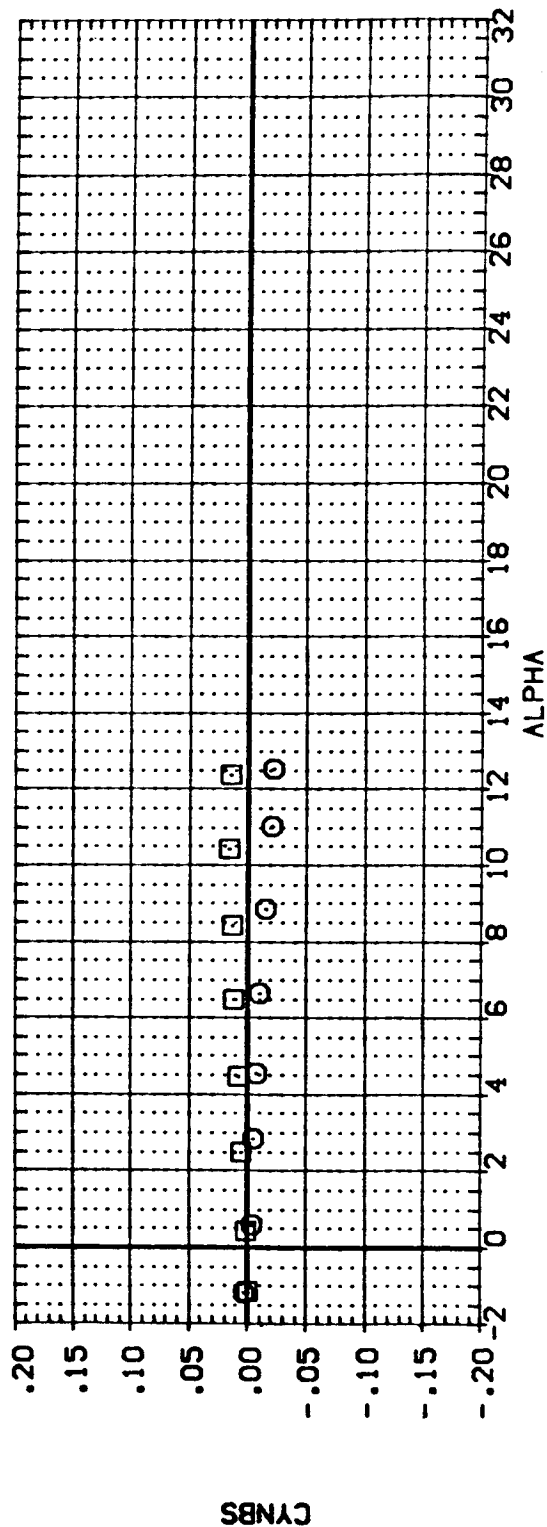
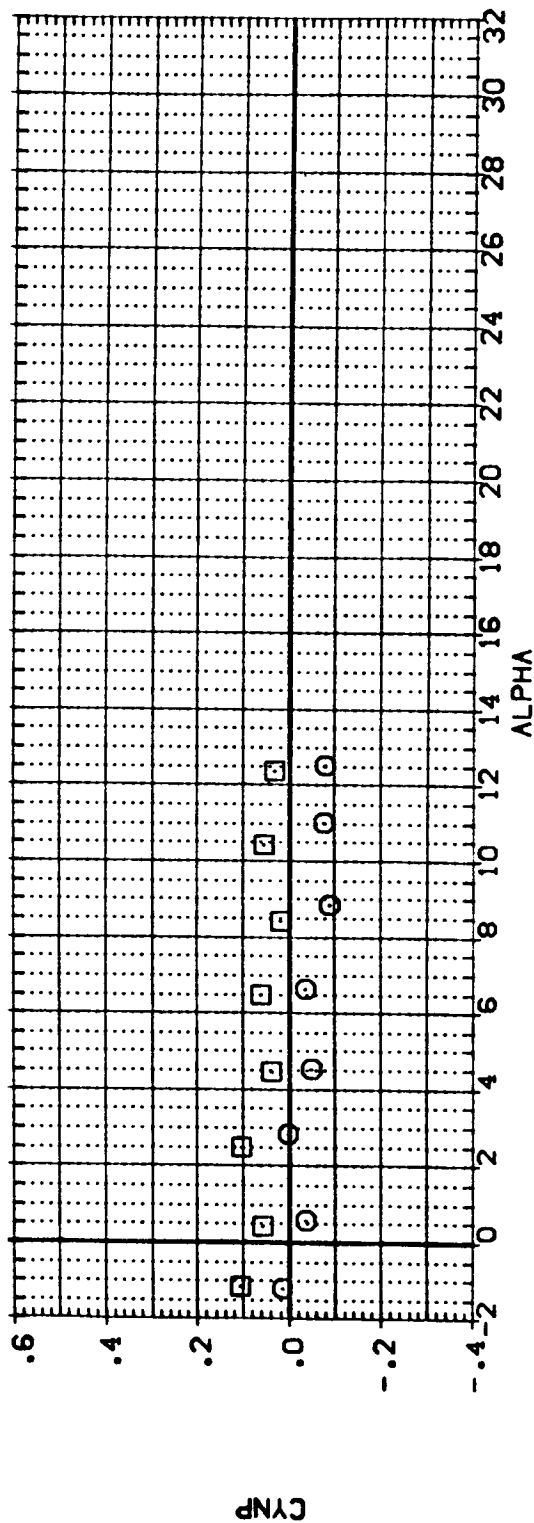


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

CAJ MACH = 1.60

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 (RPG02)      LA-14; ROCKWELL ORB 0898 V/100. NOSE (BV M )      1.000      .000  
 (RPG03)      LA-14; ROCKWELL ORB 0898 V/100. NOSE (BV M )      1.000      40.000

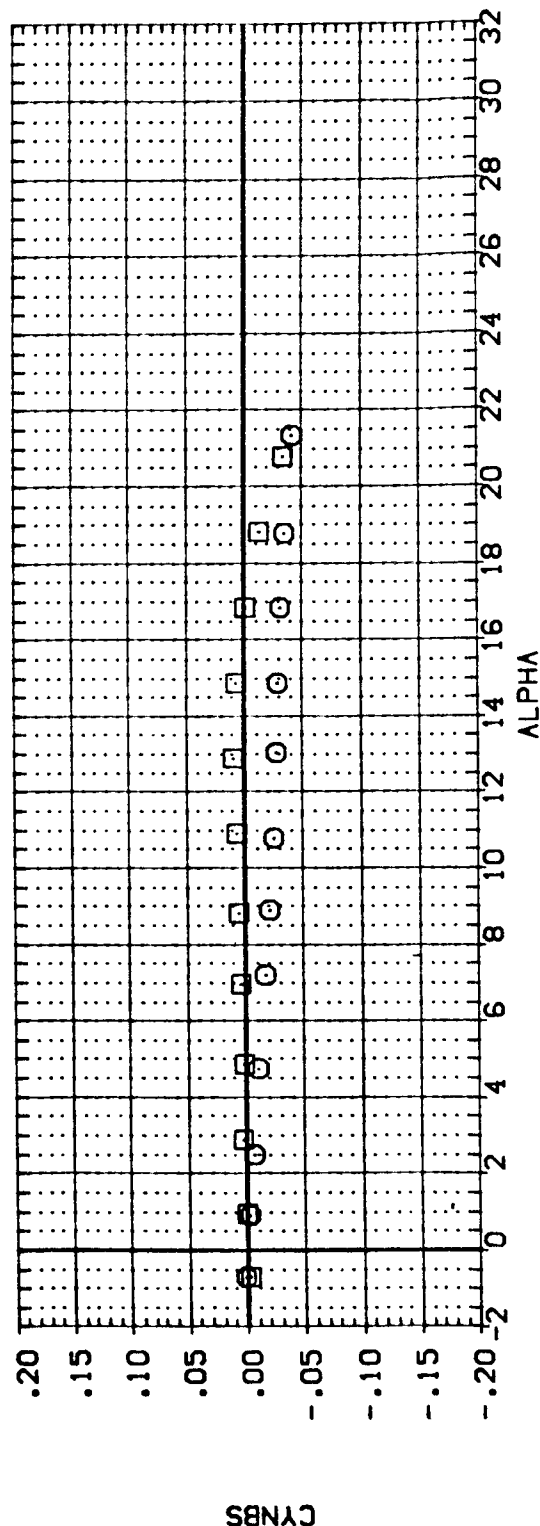
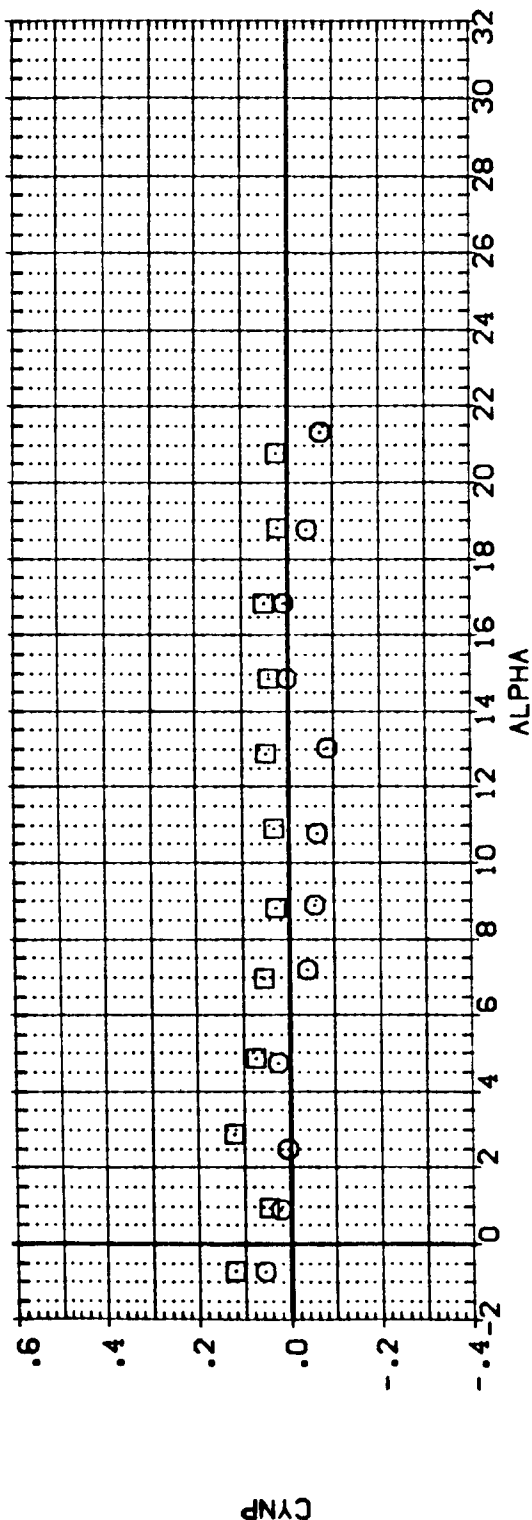


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(B)MACH = 1.90

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR  
 [ RPRGR02 ]    LA-14, ROCKWELL CR8 D898 V/MOD, NOSE (BV M )    1.000    .000    .000  
 [ RPRGR03 ]    LA-14, ROCKWELL CR8 D898 V/MOD, NOSE (BVH )    1.000    .000    40.000

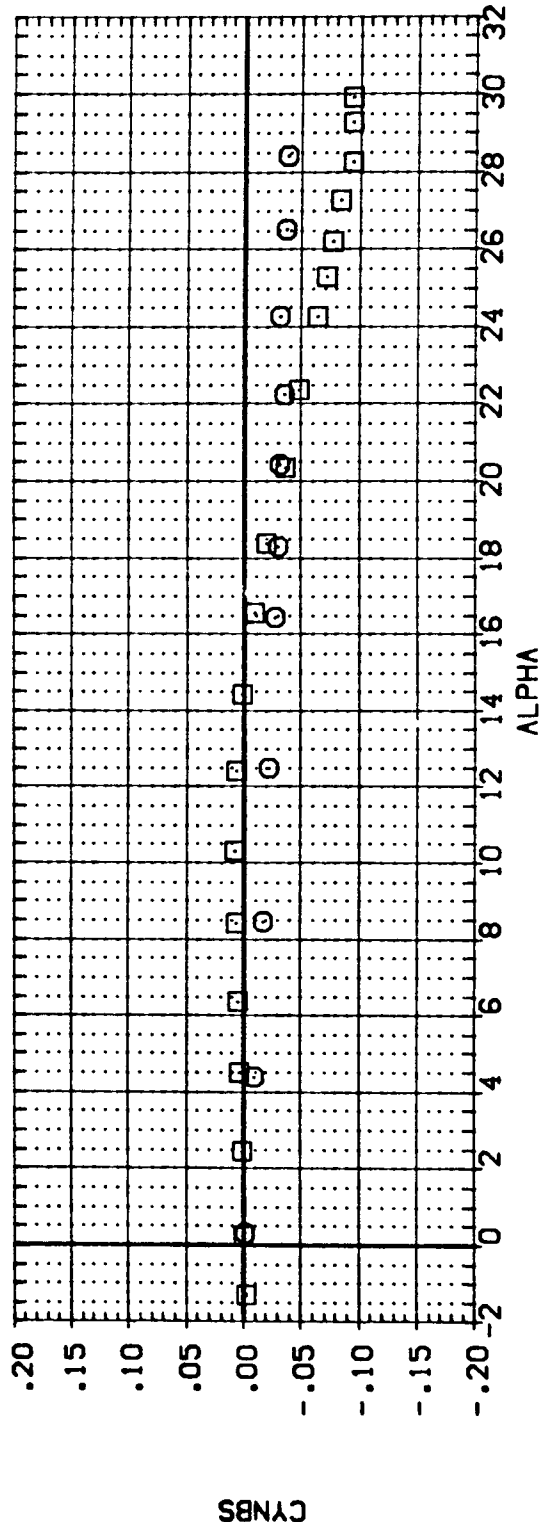
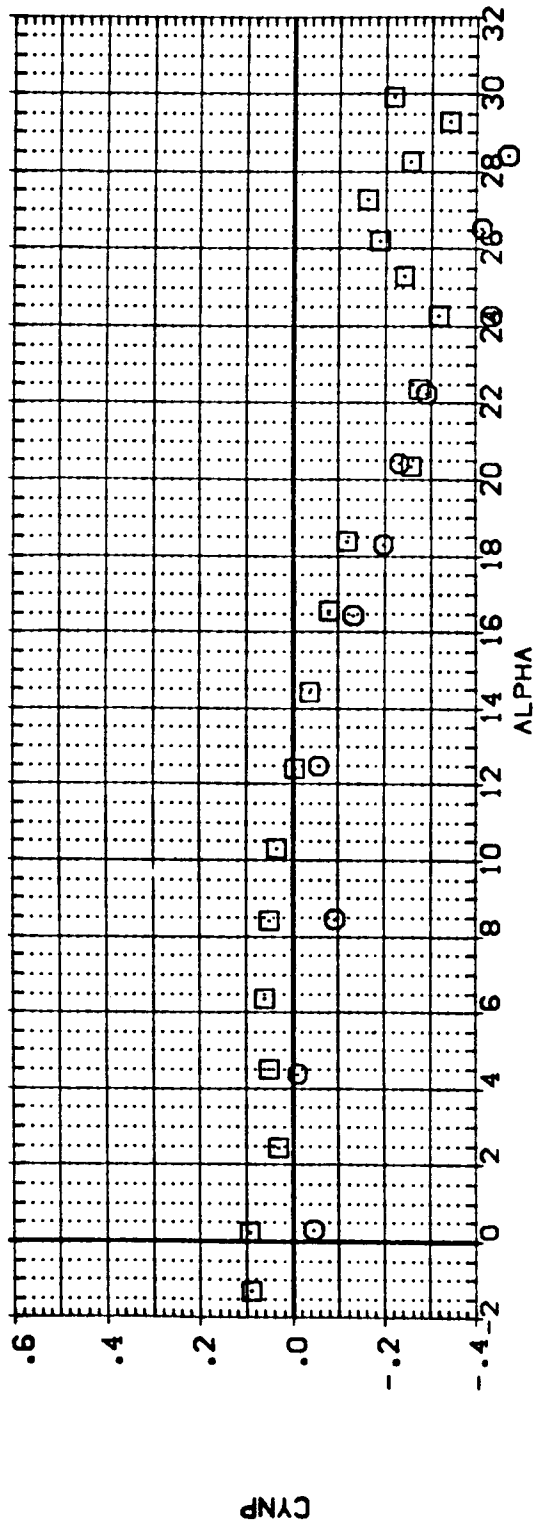


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(CJ)MACH = 2.36

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUDELIR  
 (RPG002)    LA-14; ROCKWELL    088    0888    1/100; NOSE (BW M )  
 (RPG003)    LA-14; ROCKWELL    088    0888    1/100; NOSE (BWVM )

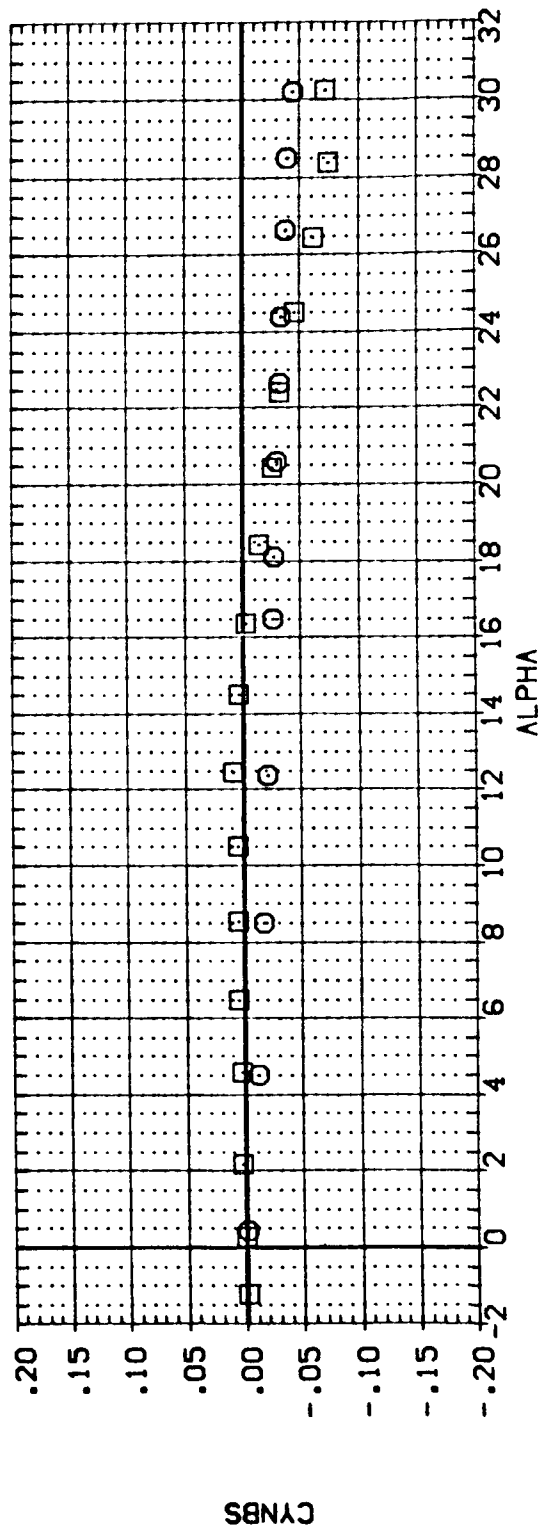
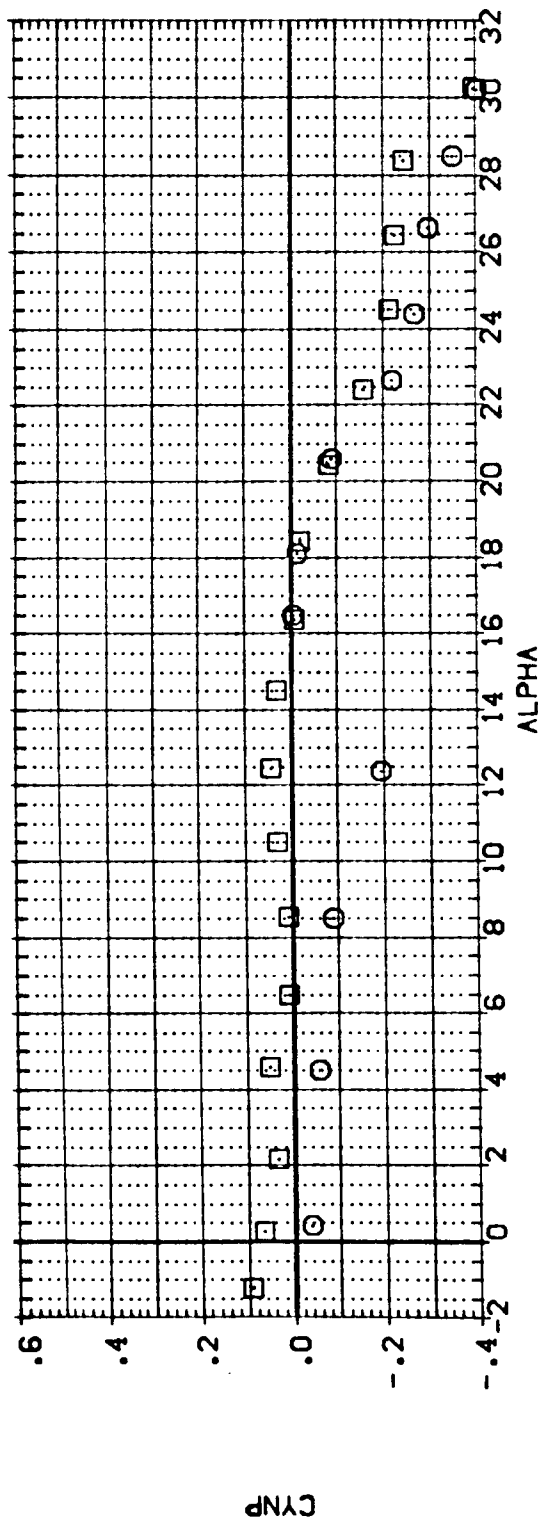


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(D)MACH = 2.86



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      RUOFLR  
 (RPG02)      LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BV M)  
 (RPG03)      LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BV M)

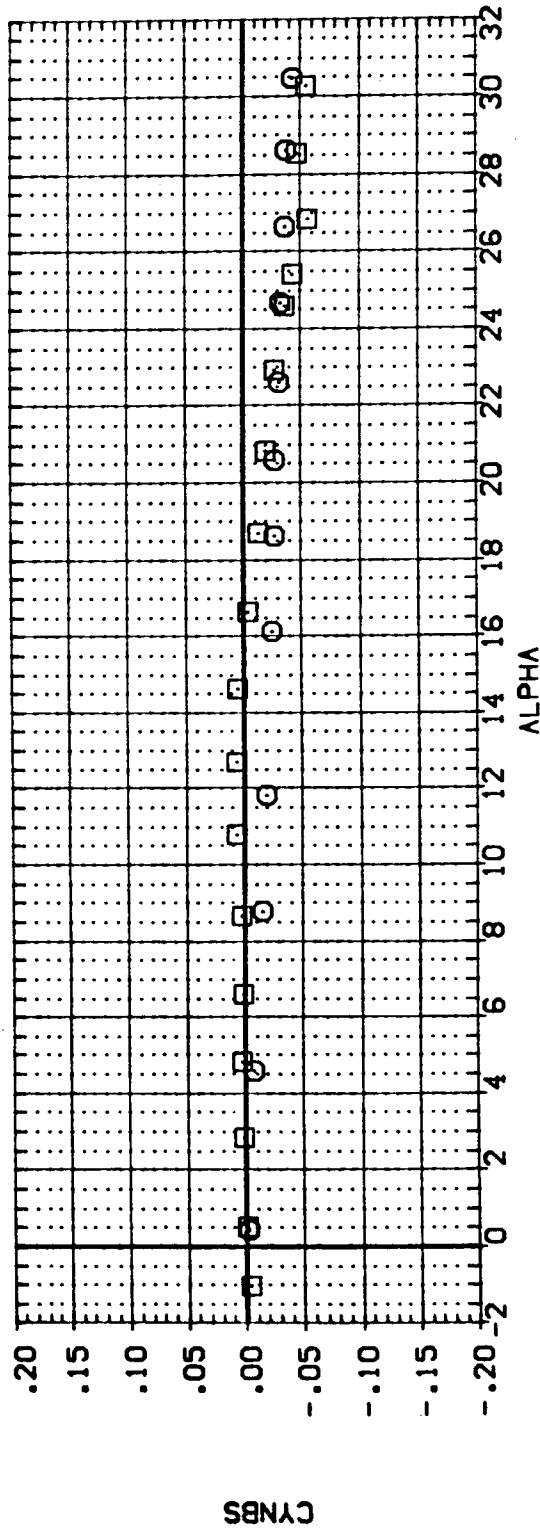
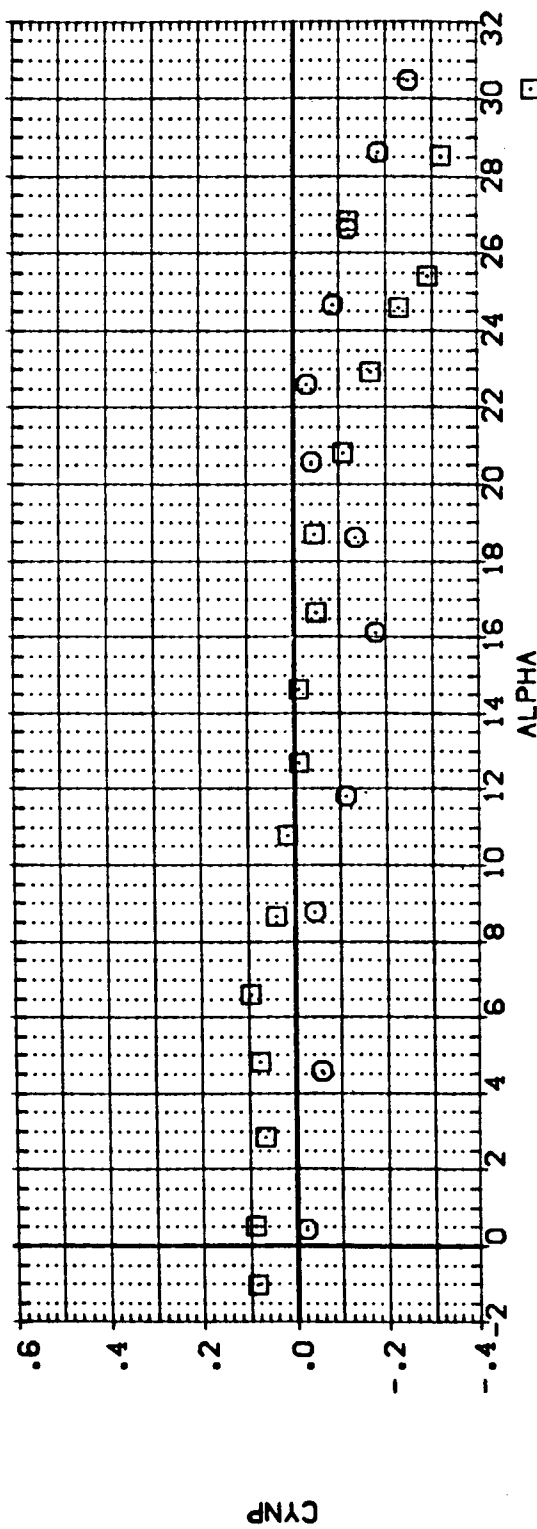


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(E)MACH = 3.96

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    RUOFLR

[ RFGRO2 ]    LA-14, ROCKWELL ORB 0698 V/MOD, NOSE (BV M )    1.000    .000    .000

[ RFGRO3 ]    LA-14, ROCKWELL ORB 0698 V/MOD, NOSE (BV M )    1.000    .000    40.000

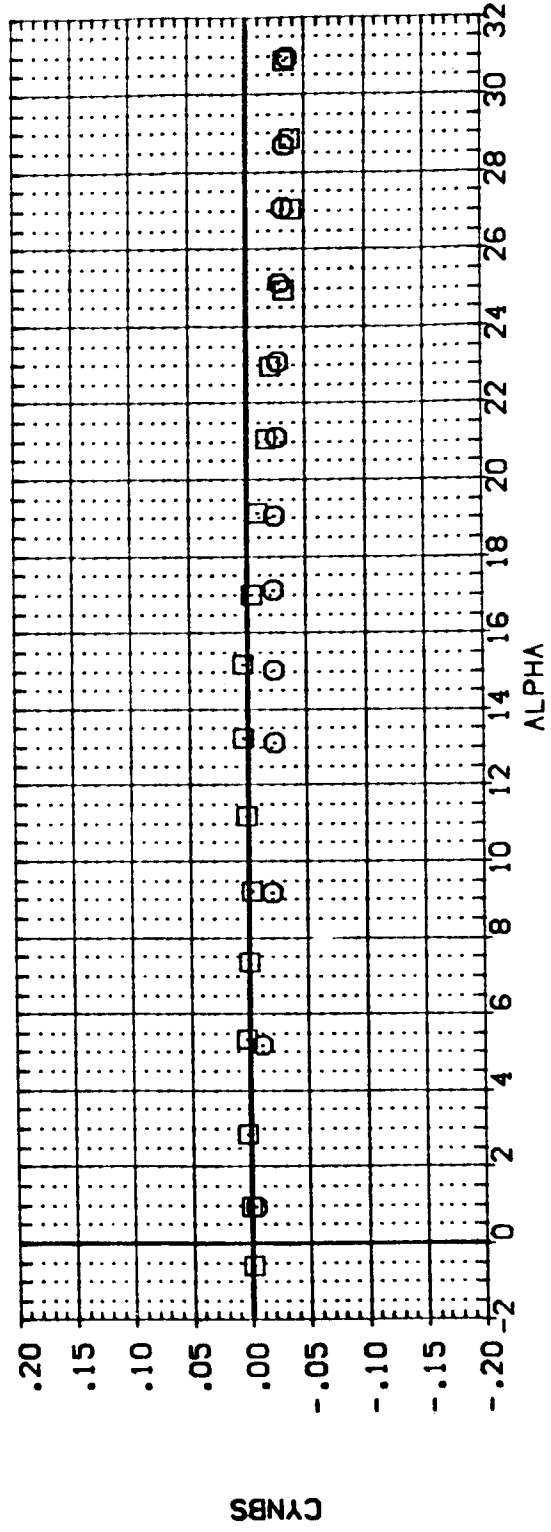
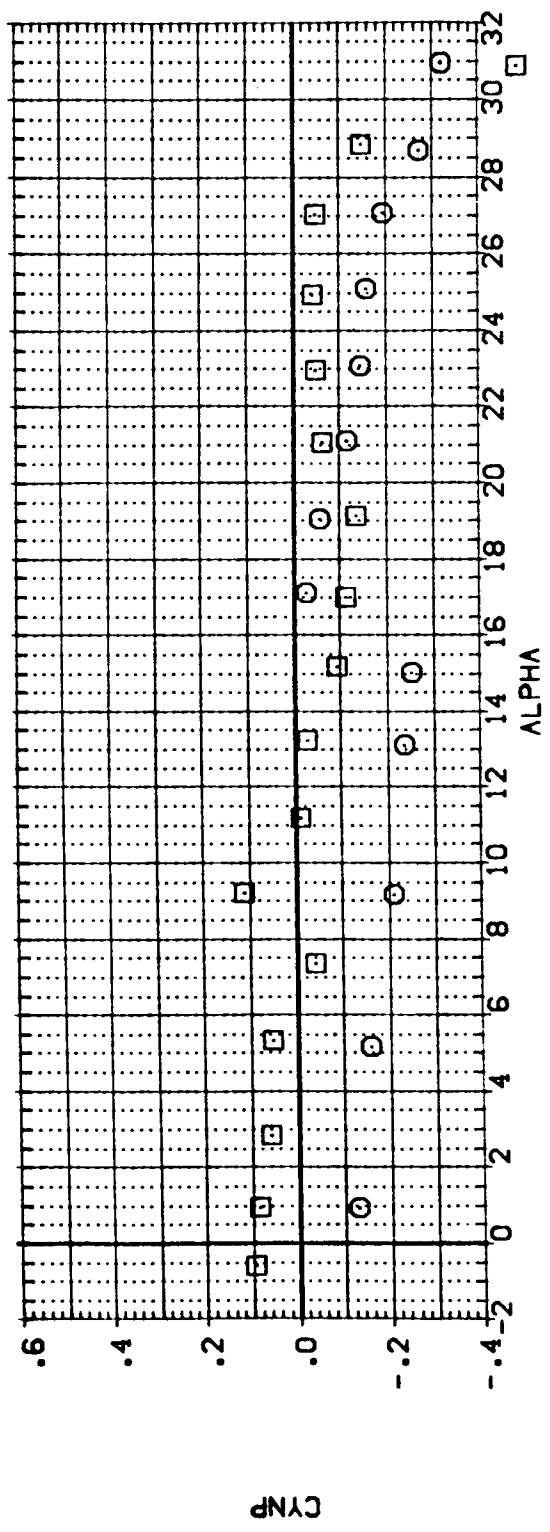


FIGURE 10. EFFECT OF VERTICAL TAIL ON DYNAMIC STABILITY PARAMETERS IN ROLL

(F)MACH = 4.63

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BOFLAP      RUOFLR

{ RFGP05 }      LA-14, ROCKWELL DRB 0898 W/HDD, NOSSE (BHVNF)      2.000      .000      .000      40.000

{ RFGP07 }      DATA NOT AVAILABLE      2.000      5.000      13.000      40.000

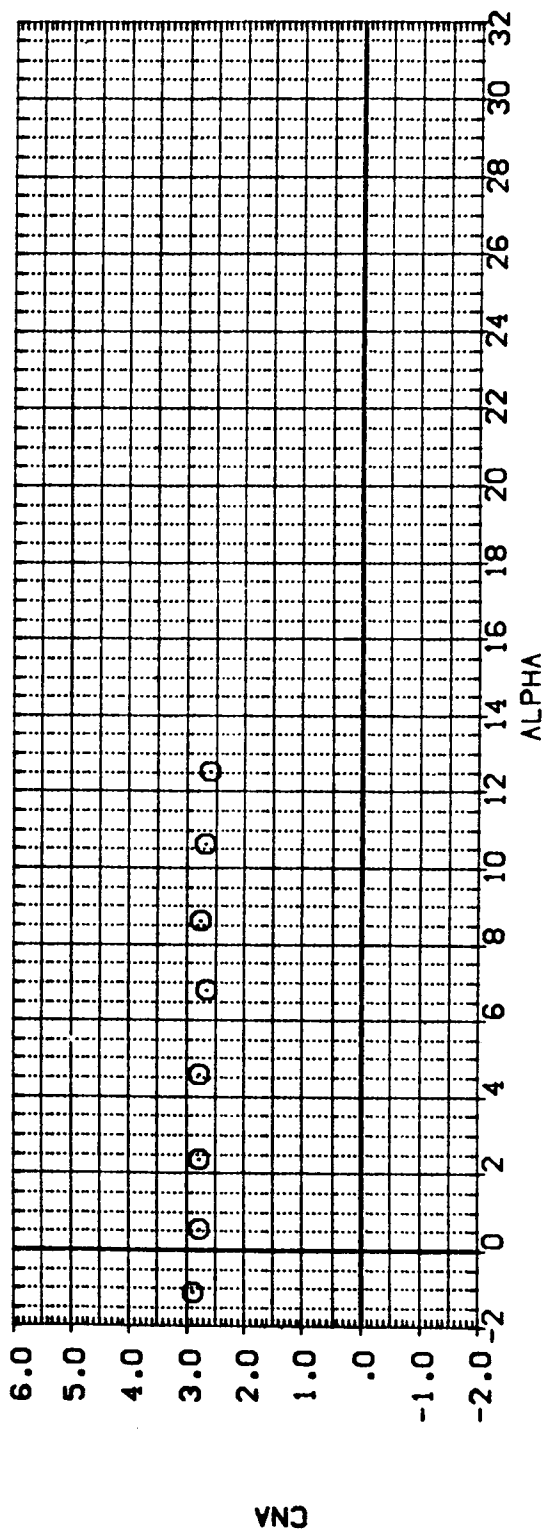
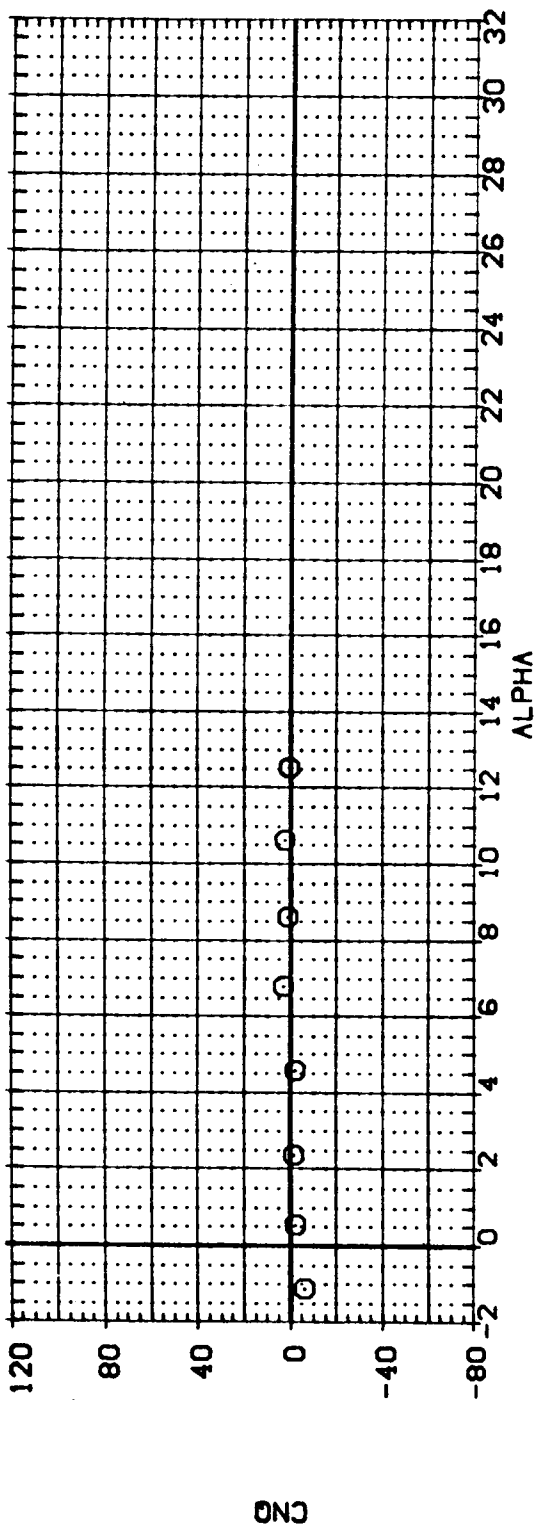


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH  
CAJ MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	BOFLAP	RUOFLR
(RPGP06)	LA-14, ROCKWELL 068 0688 V/MOD, NOSE (BVVNF)	2.000	.000	.000	40.000
(RPGP07)	LA-14, ROCKWELL 068 0688 V/MOD, NOSE (BVVNF)	2.000	5.000	13.000	40.000

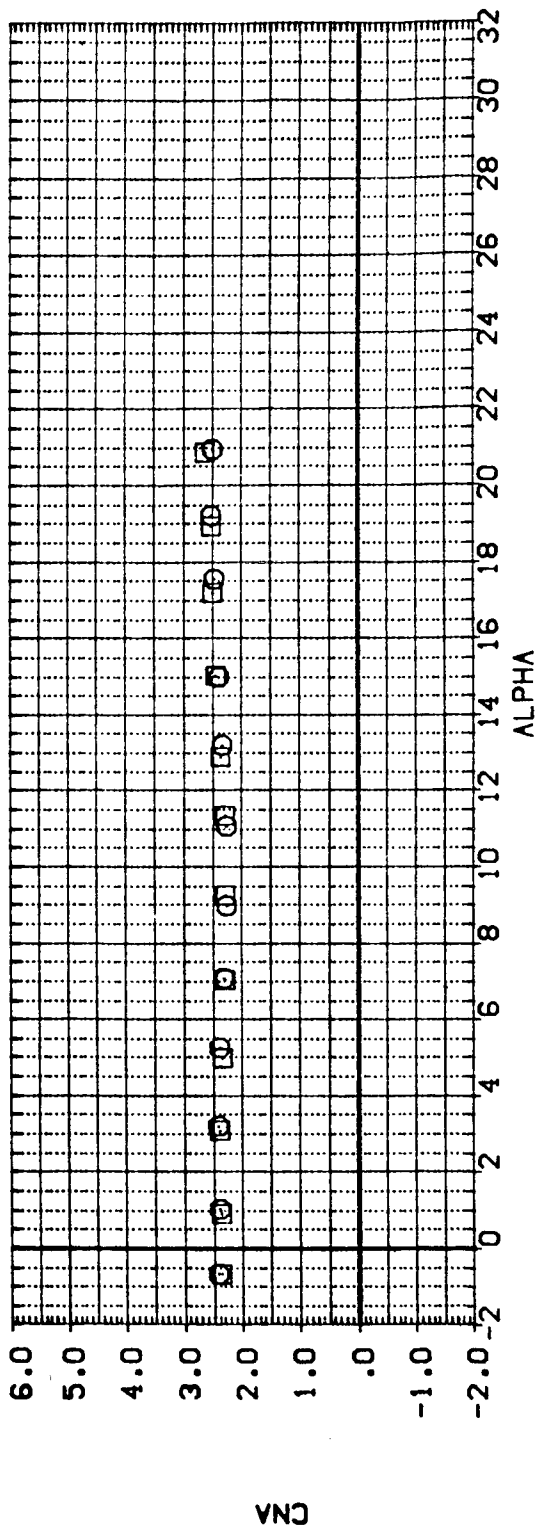
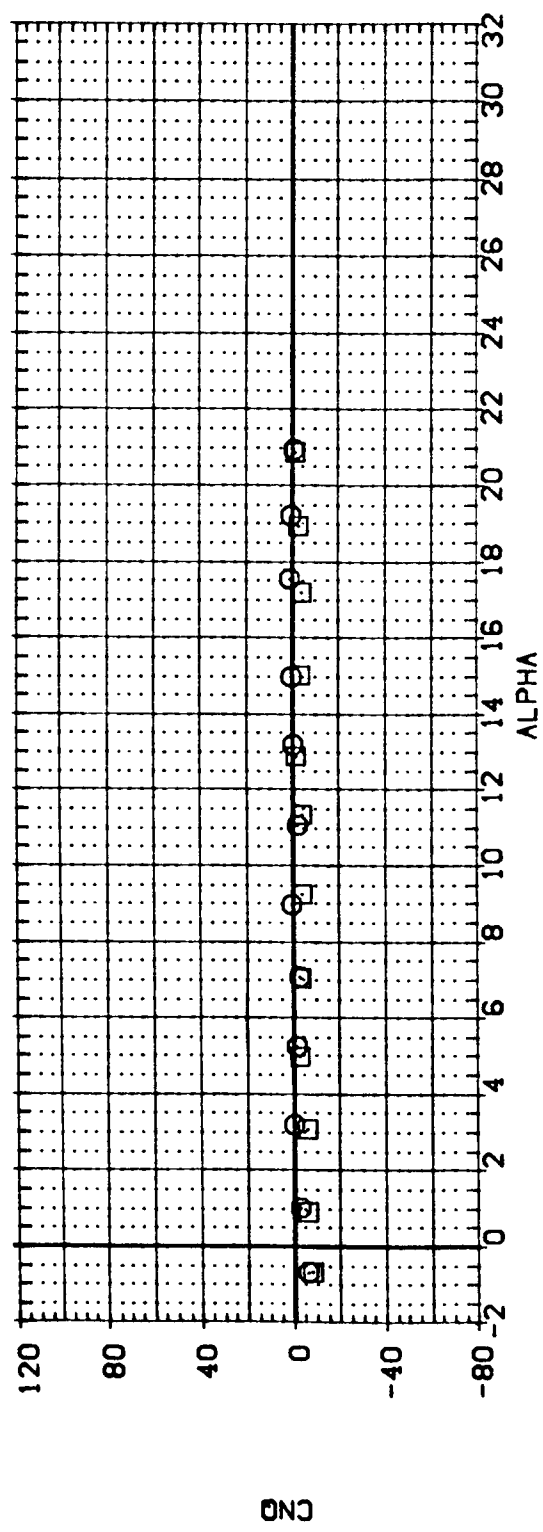


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH

(B)MACH = 1.90

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BOFLAP      RUOFLR  
 (RPGP05)      LA-14, ROCKVELL DRB 0898 V/MOD. NOSE (BVVWF)      2.000      .000      .000      40.000  
 (RPGP07)      LA-14, ROCKVELL DRB 0898 V/MOD. NOSE (BVVWF)      2.000      5.000      13.000      40.000

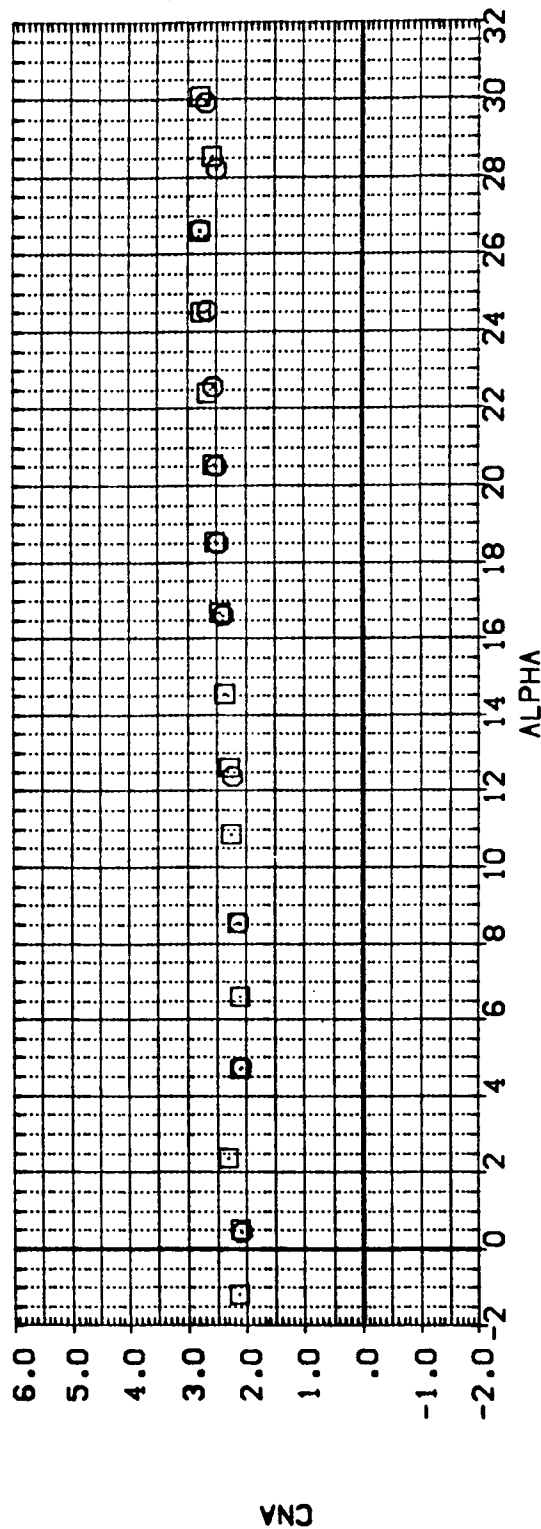
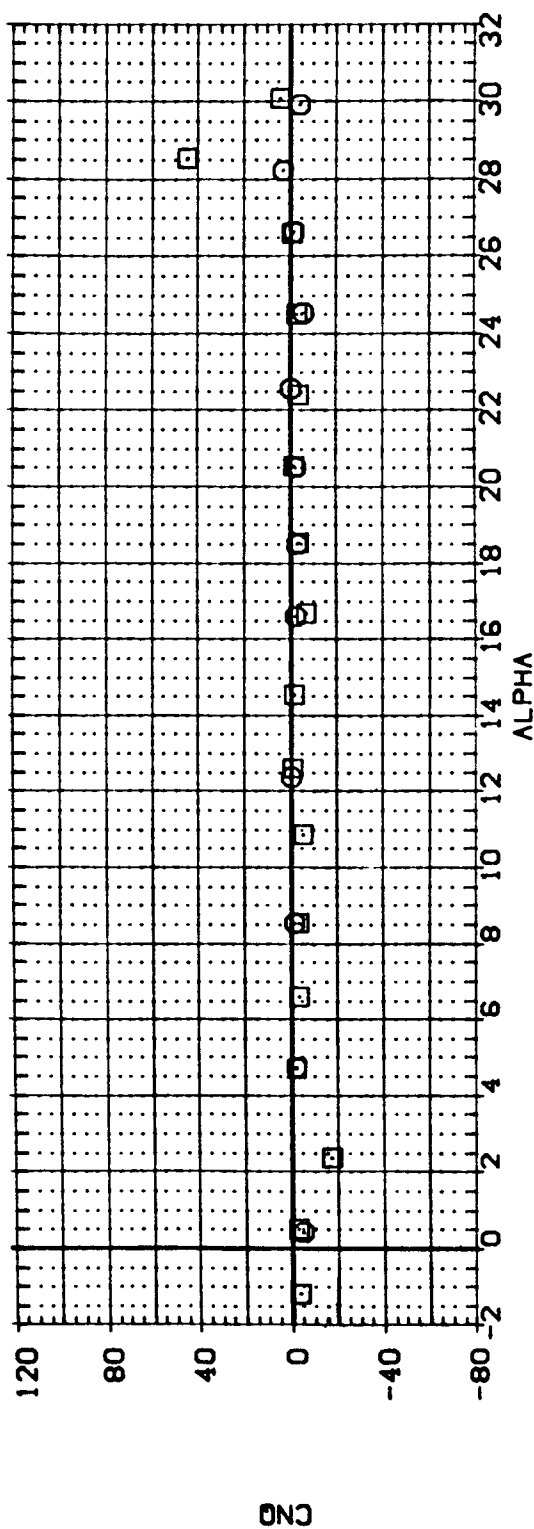


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH

(C)MACH = 2.36

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BOFLAP      RUOFLR  
 [RPGP06]      LA-14, ROCKWELL CRB 0858 V/MOD. NOSE (BVVNF)      2.000      .000      .000      40.000  
 [RPGP07]      LA-14, ROCKWELL CRB 0858 V/MOD. NOSE (BVVNF)      2.000      5.000      13.000      40.000

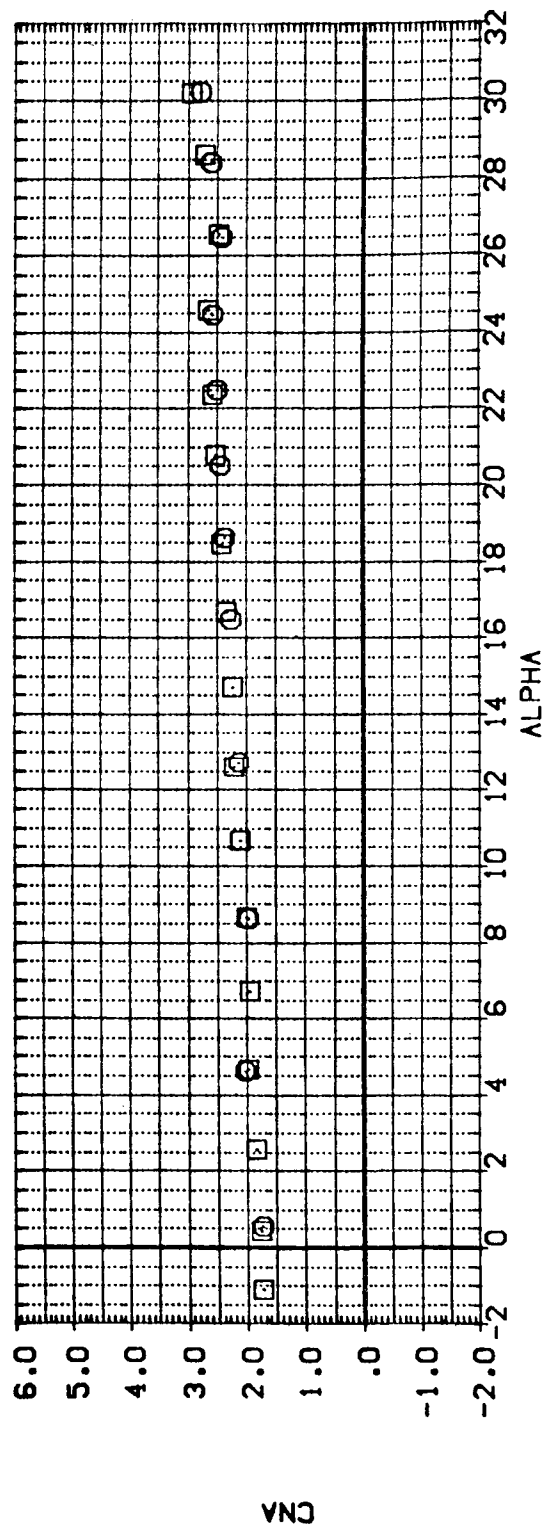
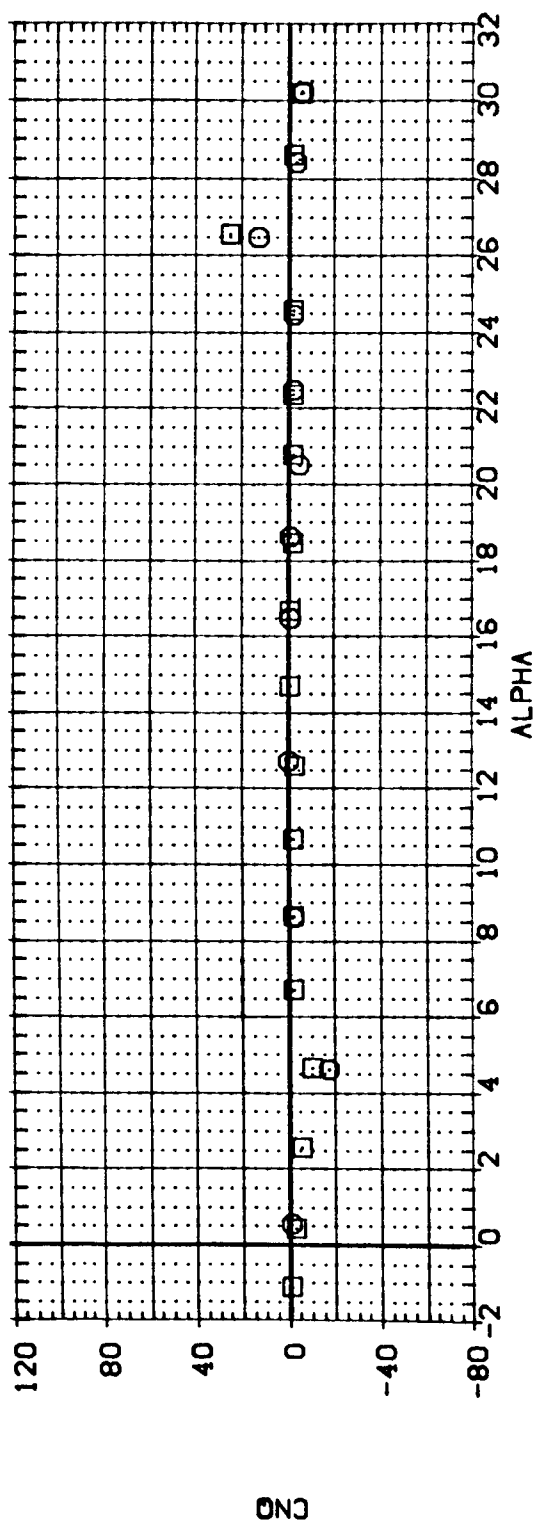


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH

(O)MACH = 2.86

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    BDFLAP    RUOFLR  
 (RPG06)    LA-14; ROCKWELL ORB 0698 V/MOD; NOSE (BVMVF)    2.000    .000    .000    40.000  
 (RPG07)    LA-14; ROCKWELL ORB 0698 V/MOD; NOSE (BVMVF)    2.000    5.000    13.000    40.000

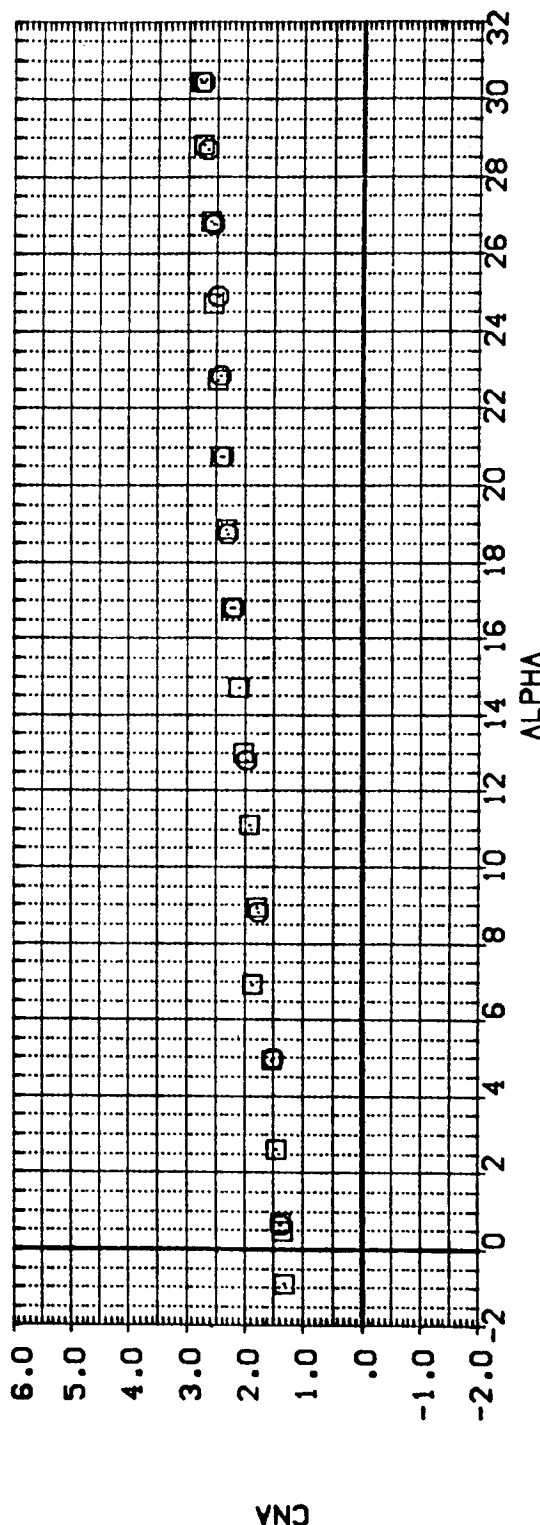
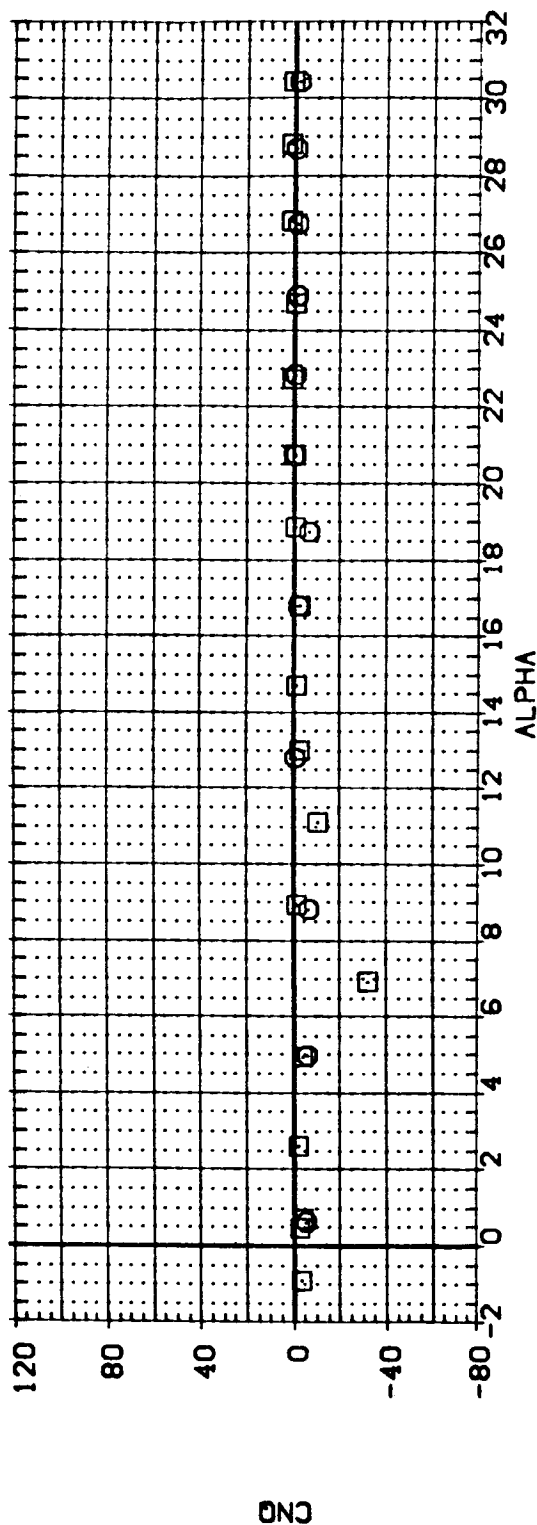


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH

(E)MACH = 3.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(BFGP05) LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BVMVF)  
(BFGP07) LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BVMVF)

CG-LOC ELEVTR BOFLAP RUOFLR  
2.000 .000 .000 40.000  
2.000 5.000 13.000 40.000

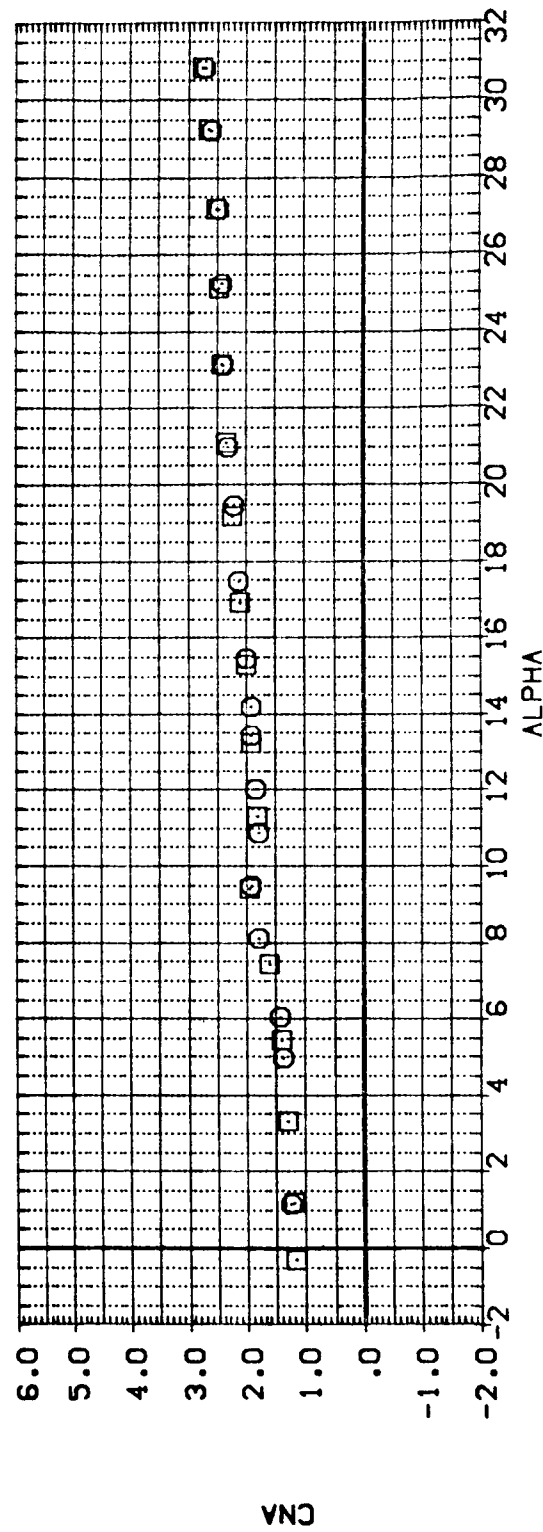
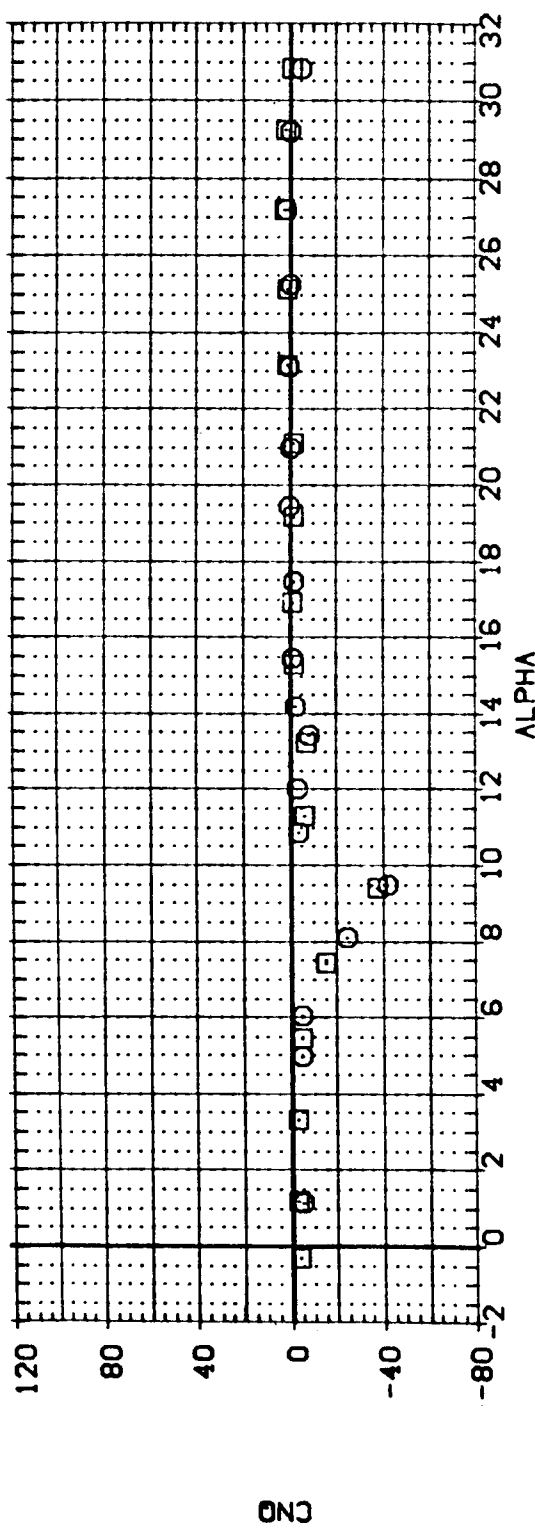


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH

(F)MACH = 4.63



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BDFLAP      RUDELIR  
 (RPG005)      LA-14, ROCKWELL ORB 0898 V/MOD, NOSE (BWHVF)      2.000      .000      .000      40.000  
 (RPG007)      DATA NOT AVAILABLE      2.000      5.000      13.000      40.000

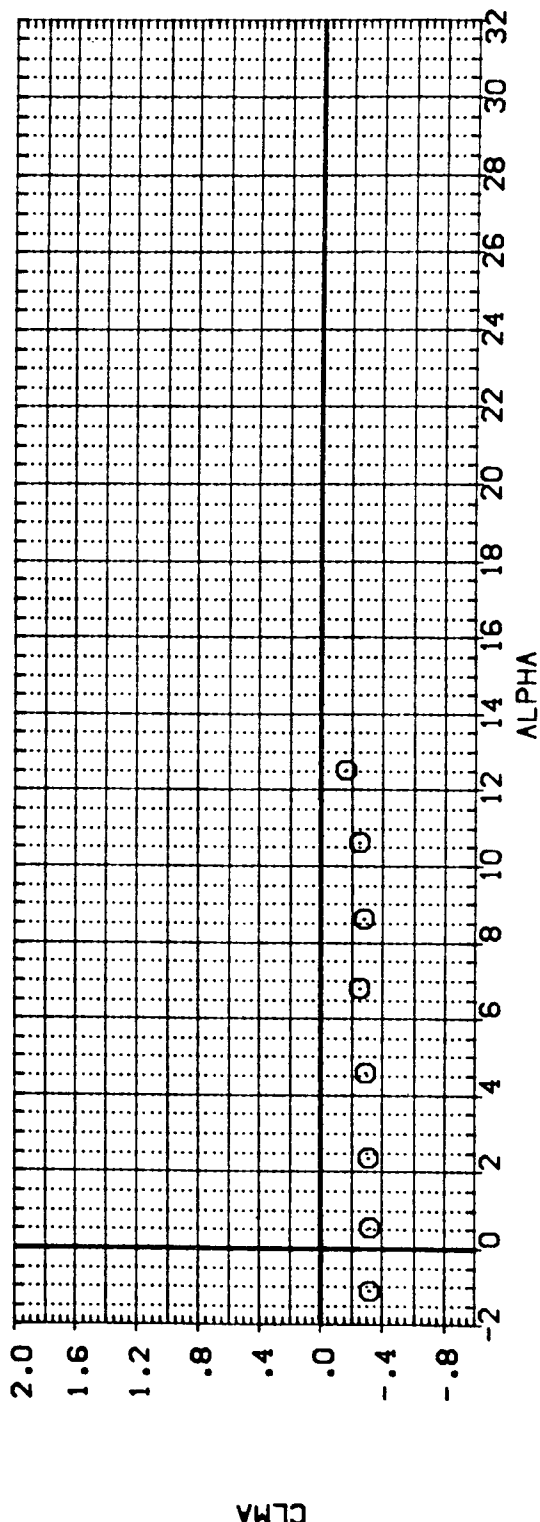
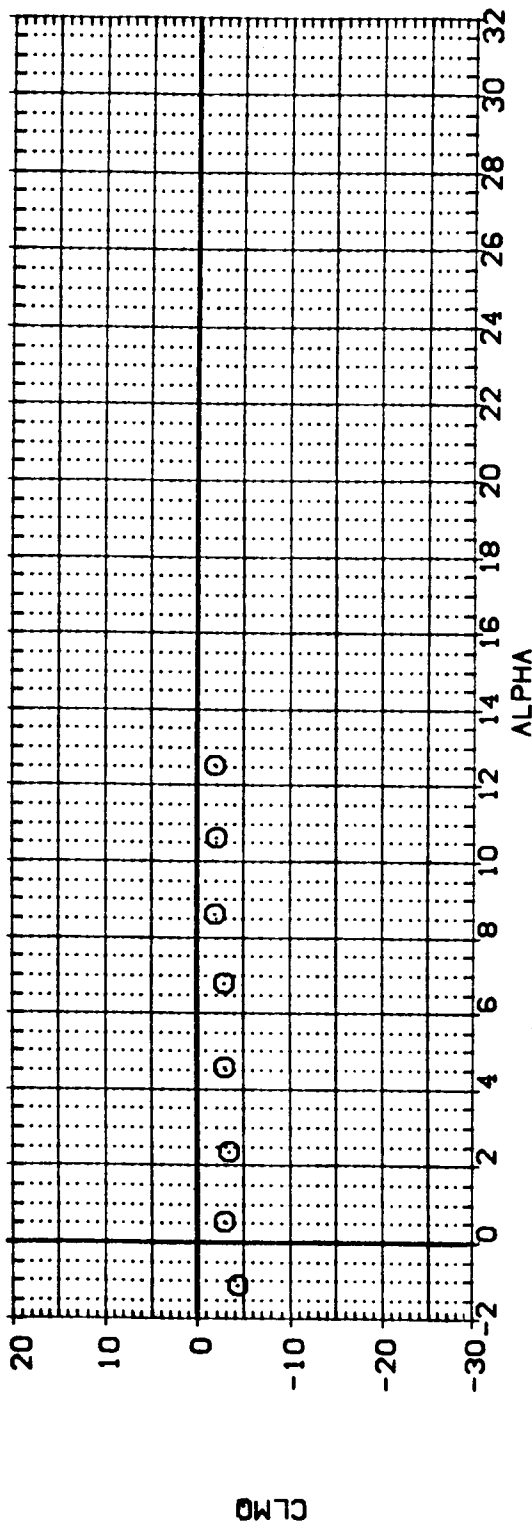


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH  
 (A)MACH = 1.60

DATA SET SYMBOL: LA-14; ROCKWELL ORB 0898 V/HOO. NOSE (B/M/HF) NOSE (B/M/HF)  
 (RPGP06) (RPGP07)

CG-LOC: 2.000 2.000  
 ELEVTR: .000 5.000  
 BDFLAP: .000 13.000  
 RUOFLR: 40.000 40.000

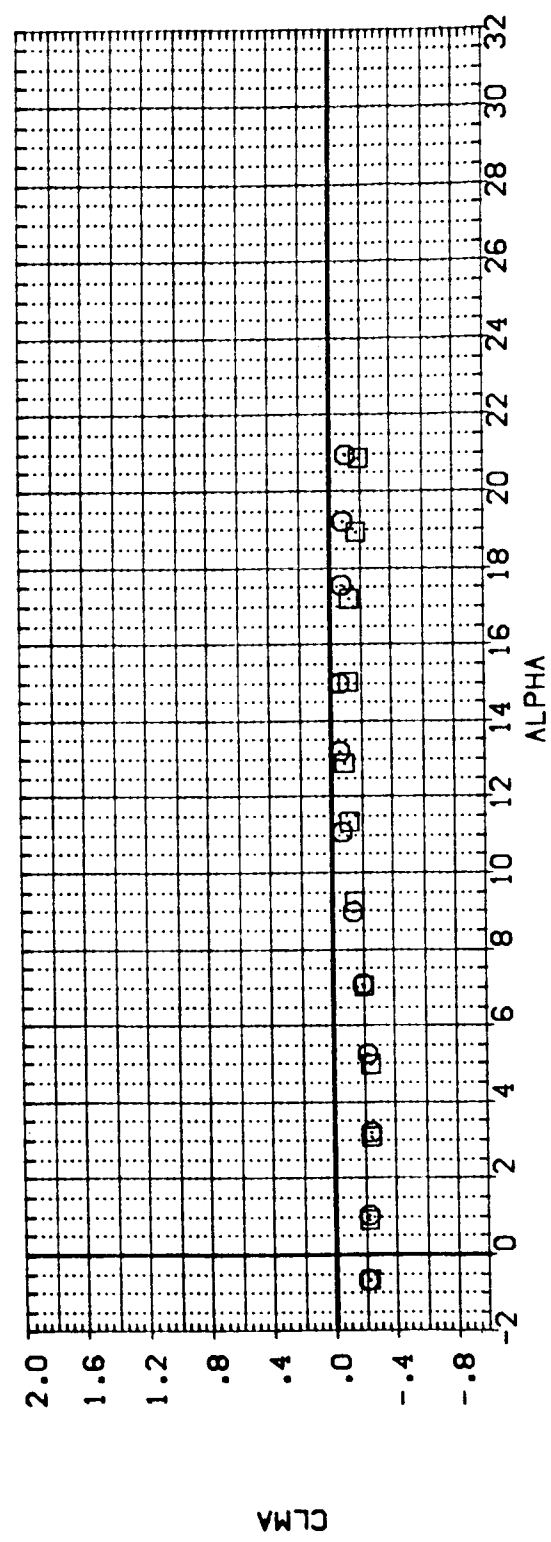
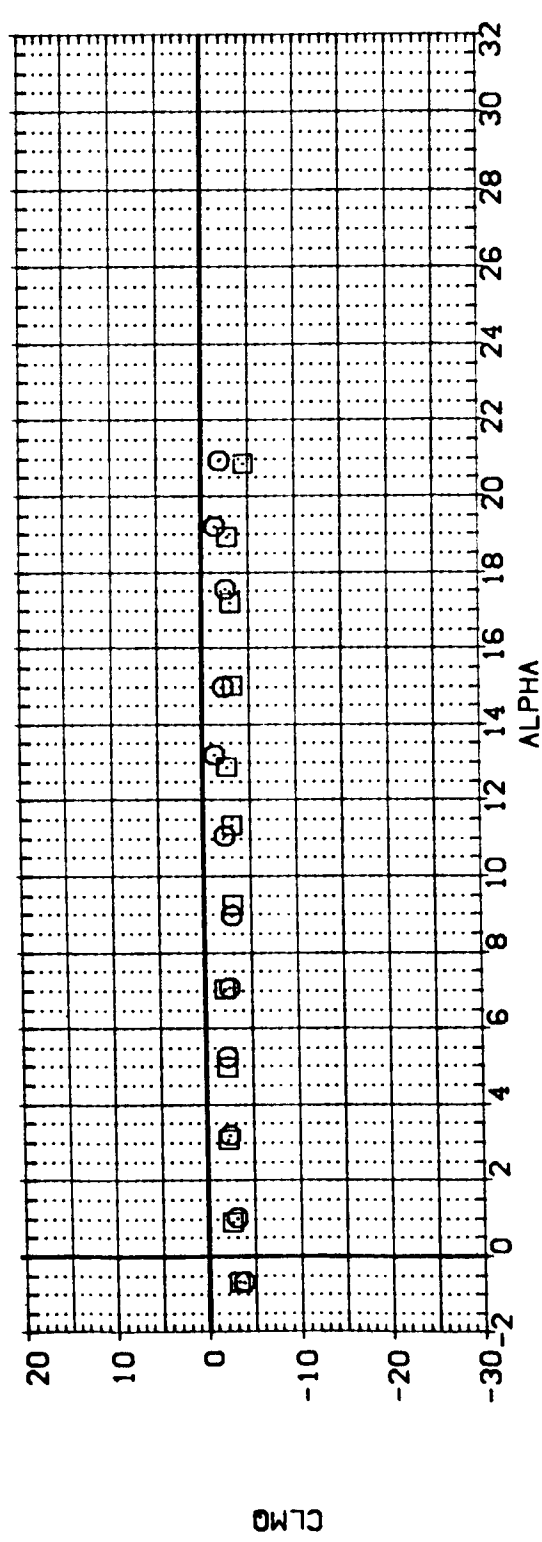


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH

(B)MACH = 1.90

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LCC      ELEVTR      BOFLAP      RUOFLR  
 (RPG006)      LA-14; ROCKWELL ORB 0898 V/MO; NOSE (BVMF)      2.000      .000      .000      40.000  
 (RPG007)      LA-14; ROCKWELL ORB 0898 V/MO; NOSE (BVMF)      2.000      5.000      13.000      40.000

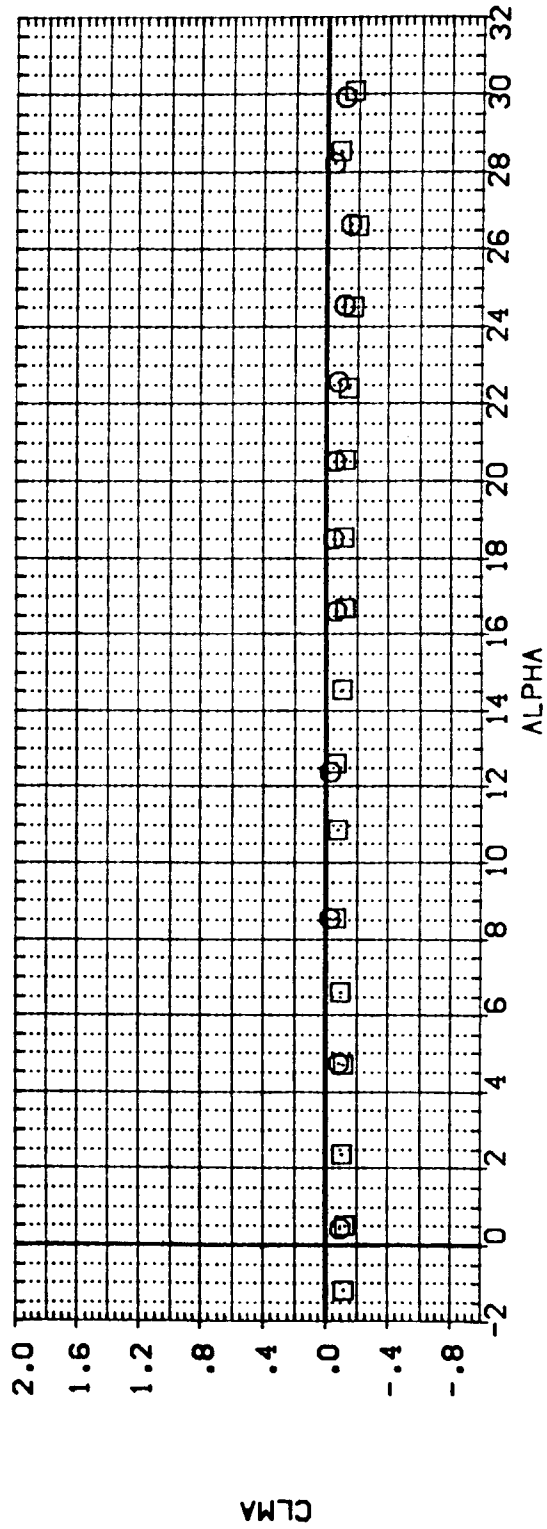
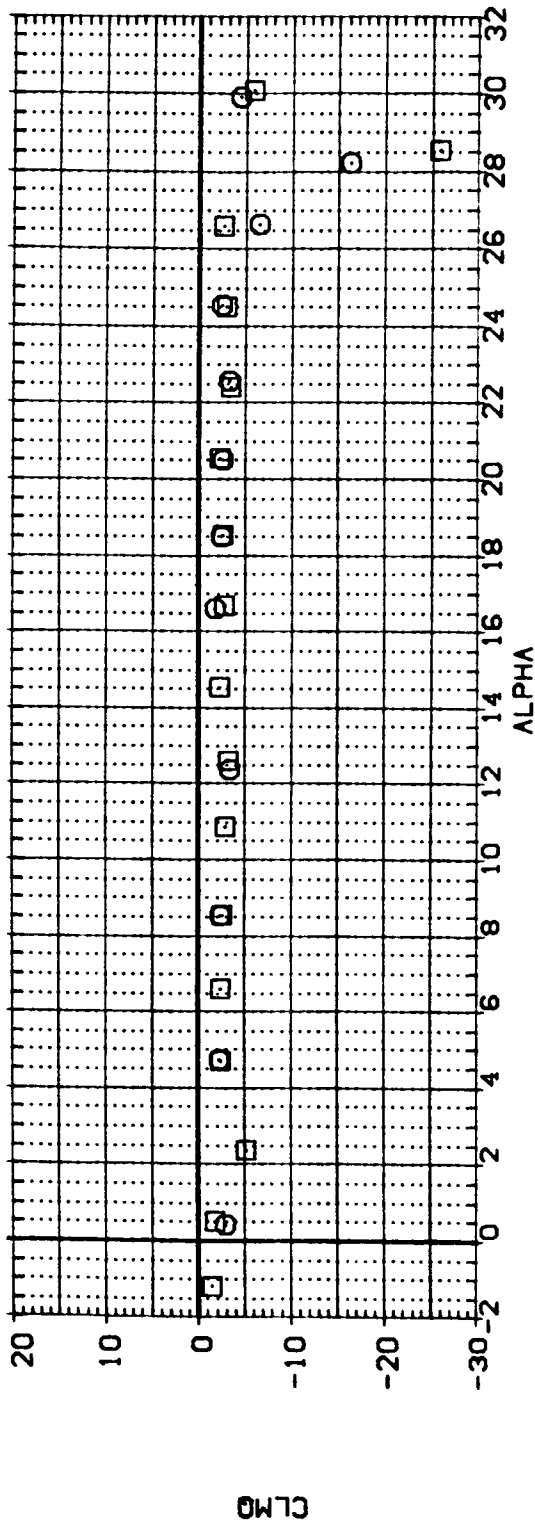


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH

(C)MACH = 2.36

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    BOFLAP    RUOFLR  
 (RPG006)    LA-14; ROCKWELL ORB 0838 V/MOD. NOSE (BVMF)    2.000    .000    .000    40.000  
 (RPG007)    LA-14; ROCKWELL ORB 0838 V/MOD. NOSE (BVMF)    2.000    5.000    13.000    40.000

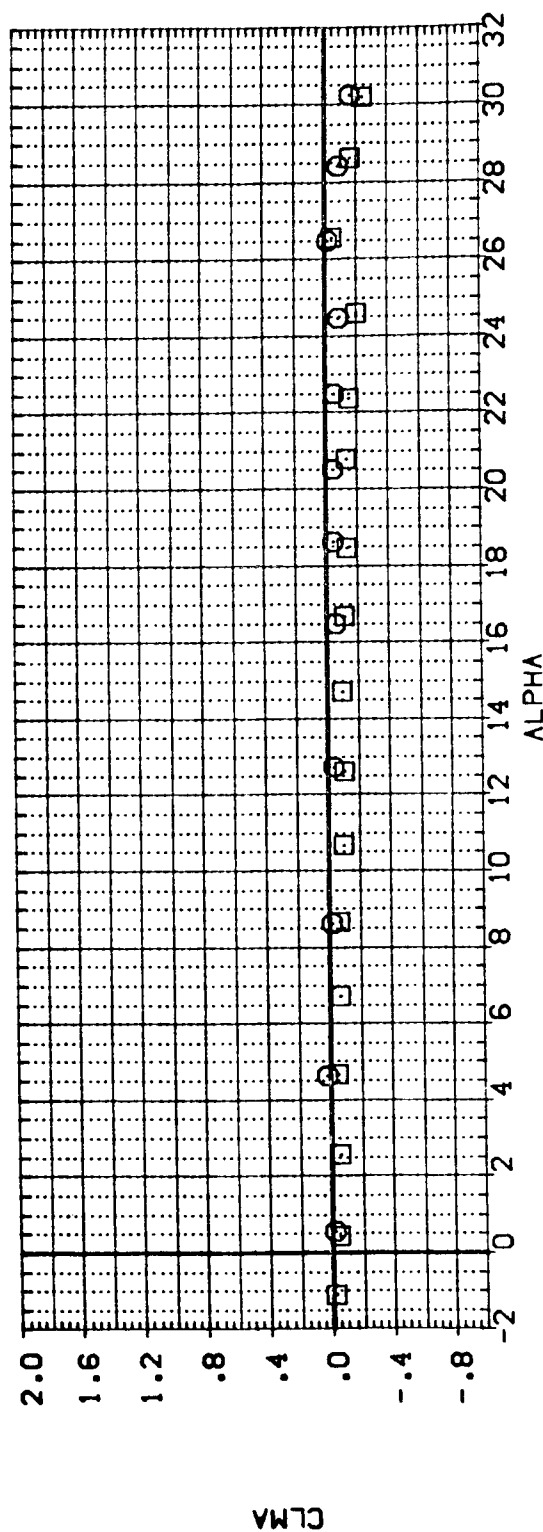
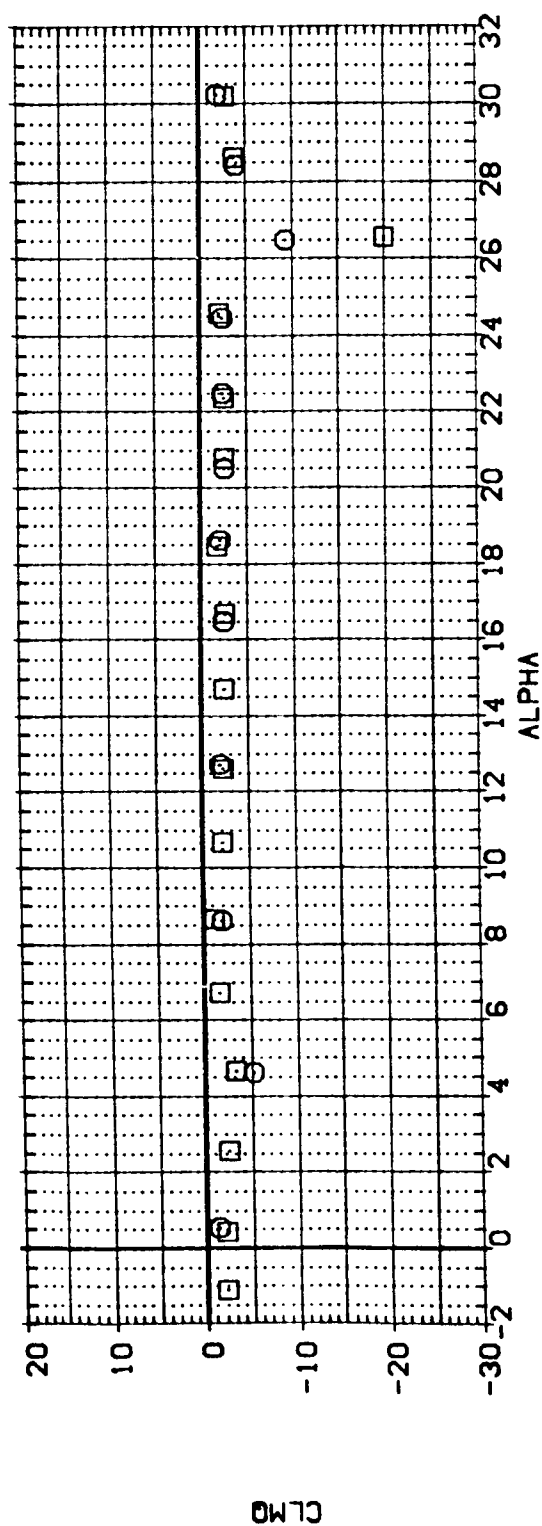


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH

(D)MACH = 2.86

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BOFLAP      RUDEL R

(RPG06)      LA-14; ROCKWELL ORB 0898 V/MOD. NOSE (BVVHF)      2.000      .000      .000      40.000

(RPG07)      LA-14; ROCKWELL ORB 0898 V/MOD. NOSE (BVVHF)      2.000      5.000      13.000      40.000

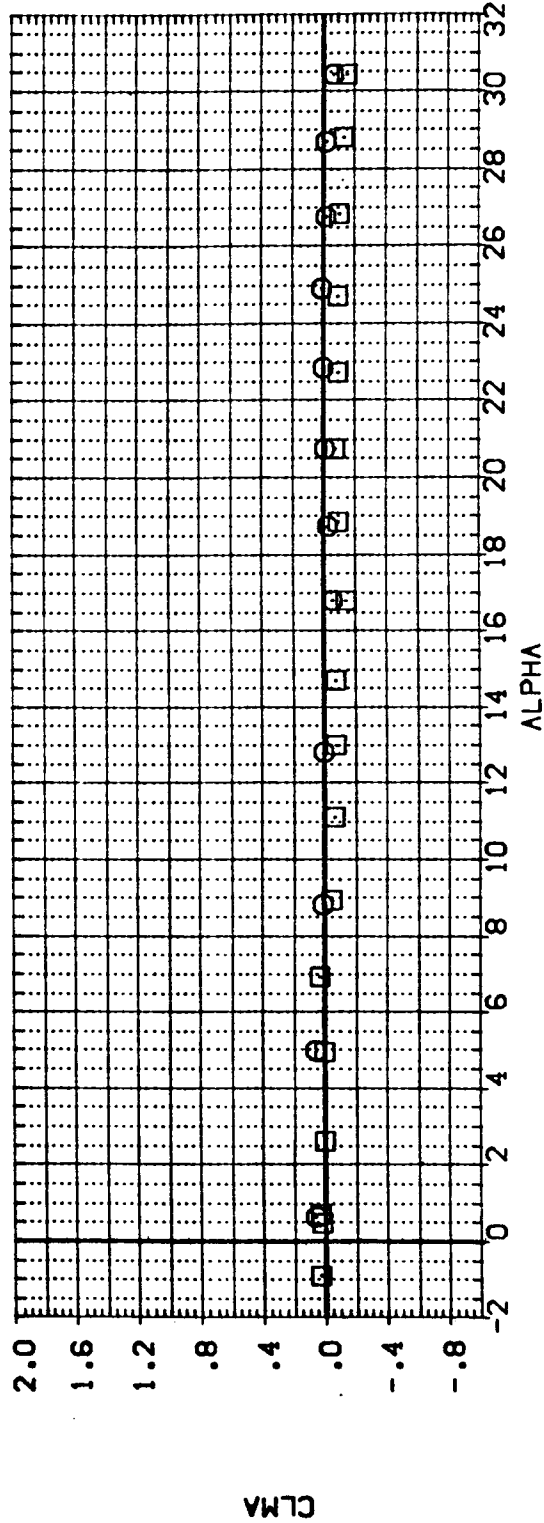
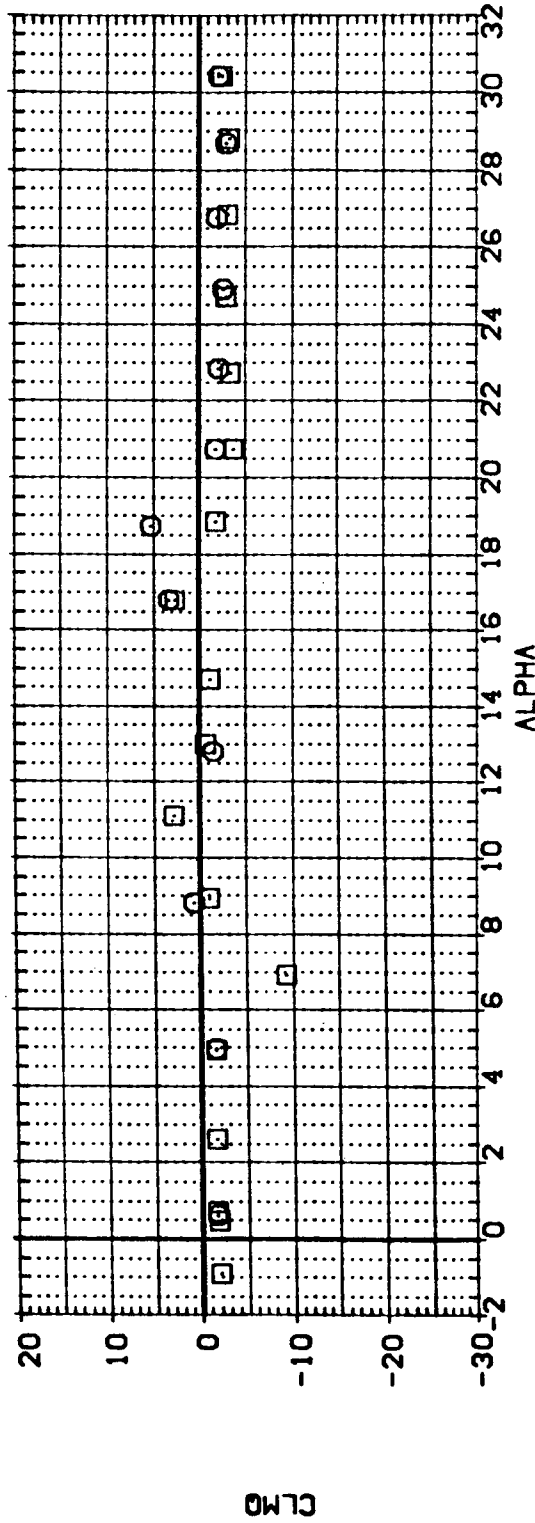


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH

(E)MACH = 3.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	BOFLAP	RUOFLR
(RPGP05)	LA-14; ROCKWELL ORB 0898 V/HOO; NOSE (BNVNF)	2.000	.000	.000	40.000
(RPGP07)	LA-14; ROCKWELL ORB 0898 V/HOO; NOSE (BNVNF)	2.000	5.000	13.000	40.000

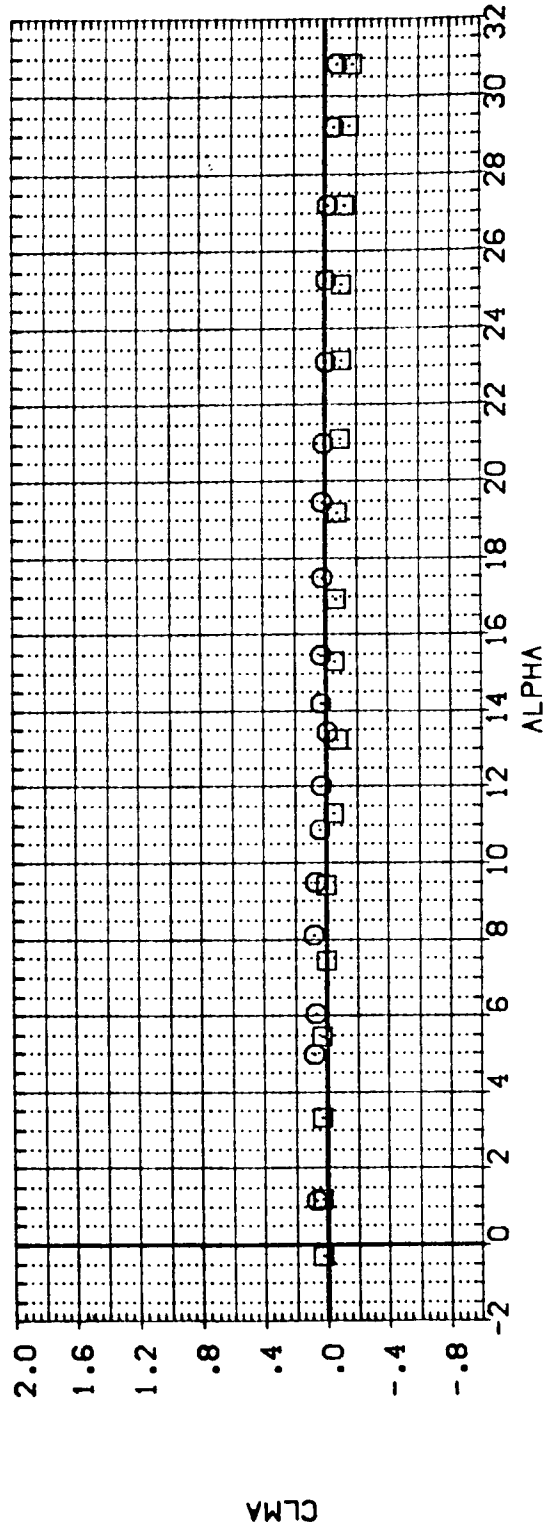
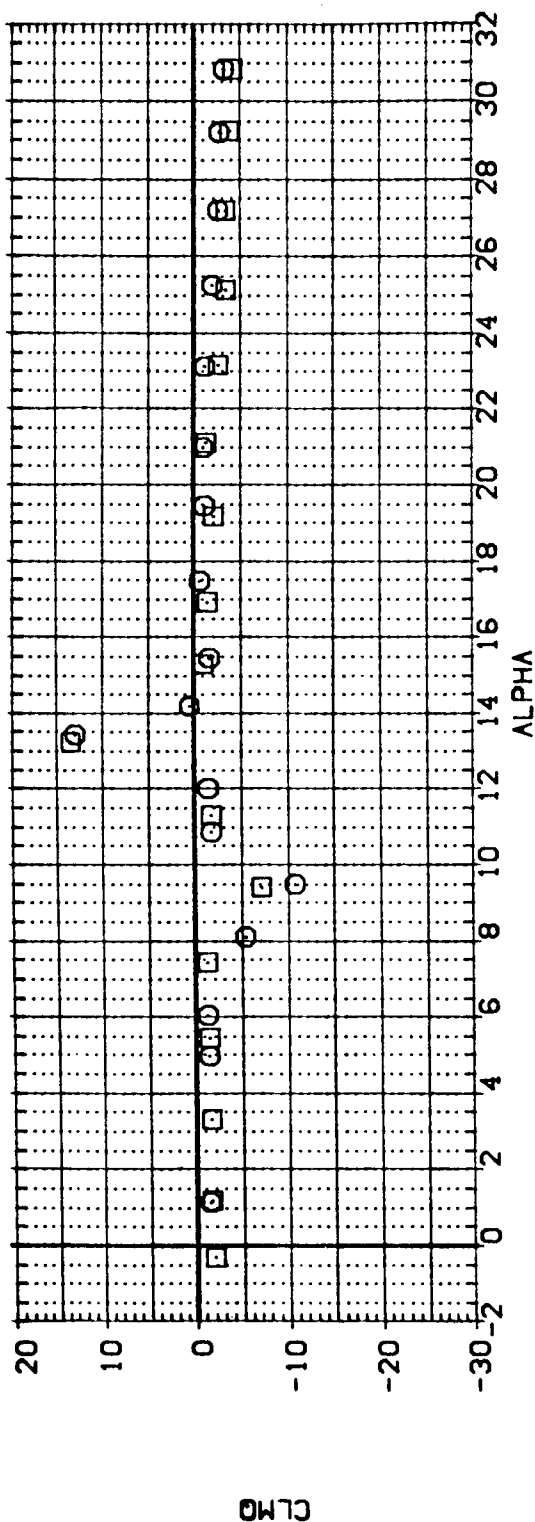


FIGURE 11. EFFECT OF ELEVONS AND BODY FLAP ON DYN. STAB. PARAMETERS IN PITCH  
 (F)MACH = 4.63

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    CG-LOC    ELEVTR    BOFLAP    RUDELIR

{RPG03}    B    LA-14, ROCKWELL CR8 D898 V/MOD, NOSE (BVVH)    1.000    .000    .000    40.000

{RPG05}       LA-14, ROCKWELL CR8 D898 V/MOD, NOSE (BVVH)    1.000    .000    .000    40.000

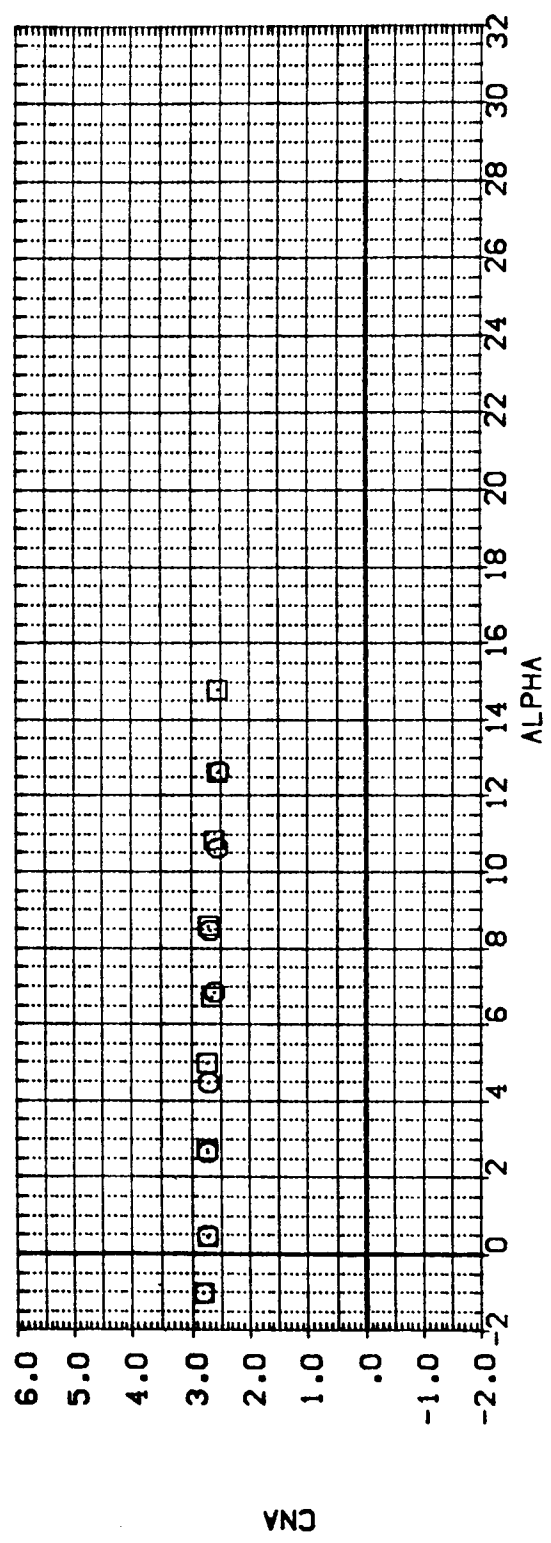
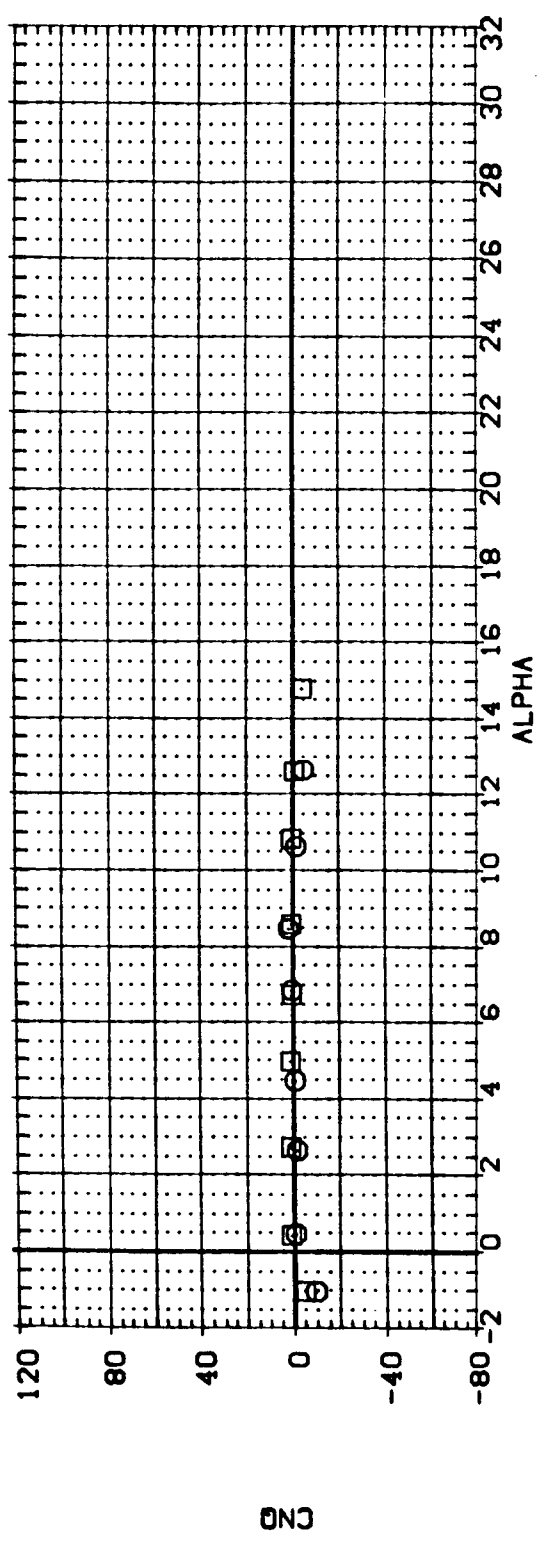


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	BOFLAP	RUDFLR
(RTGPO3)	LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BVM)	1.000	.000	.000	40.000
(RFGPO5)	LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BVM)	1.000	.000	.000	40.000

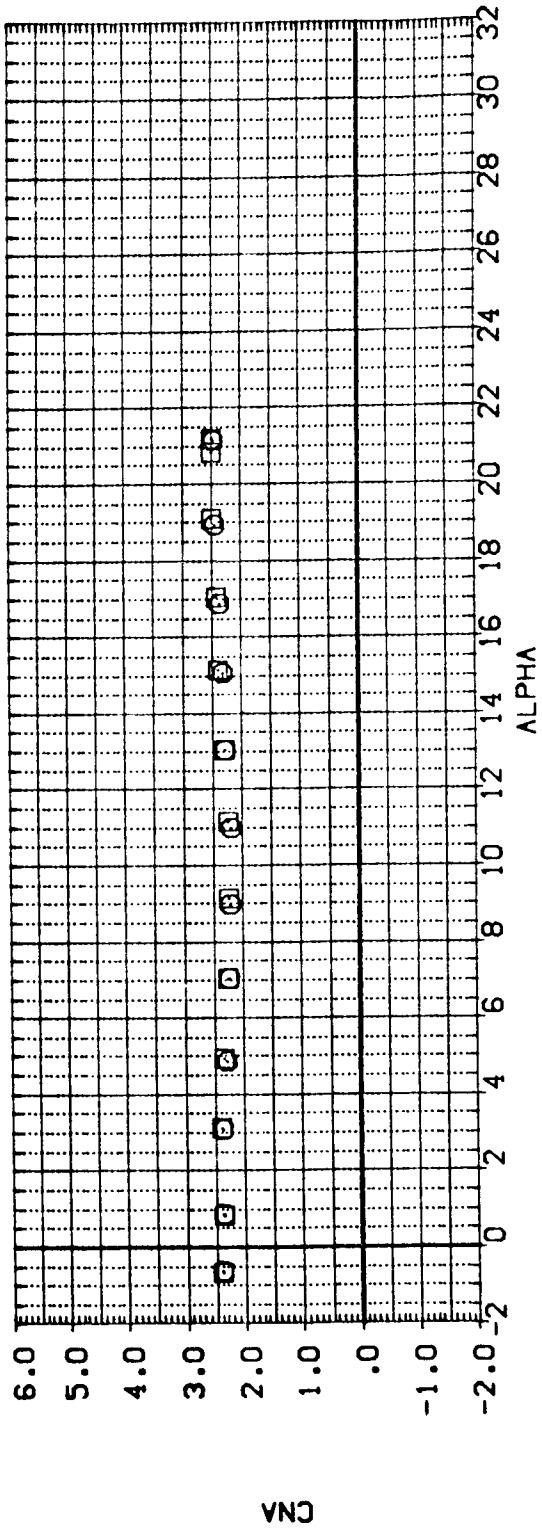
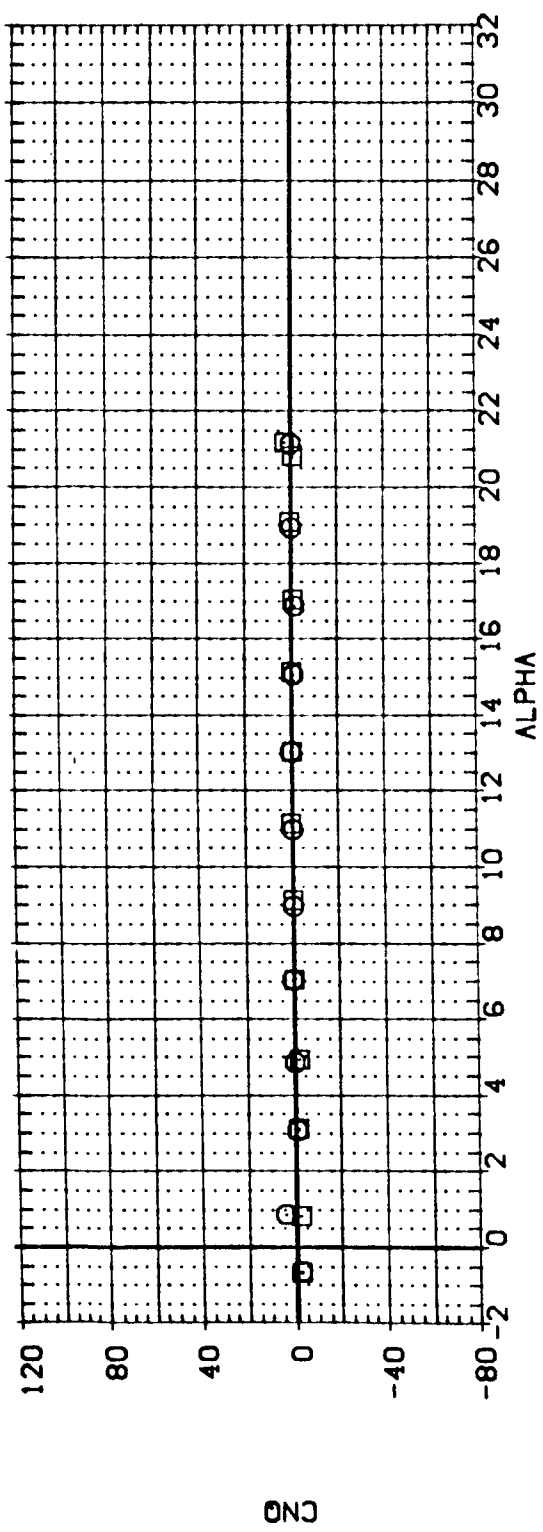


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(B)MACH = 1.90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	BDFLAP	RUOFLR
{RPGP03}	LA-14: ROCKWELL ORB 0898 V/MOD. NOSE (BVMF)	1.000	.000		40.000
{RPGP05}	LA-14: ROCKWELL ORB 0898 V/MOD. NOSE (BVMF)	1.000	.000	.000	40.000

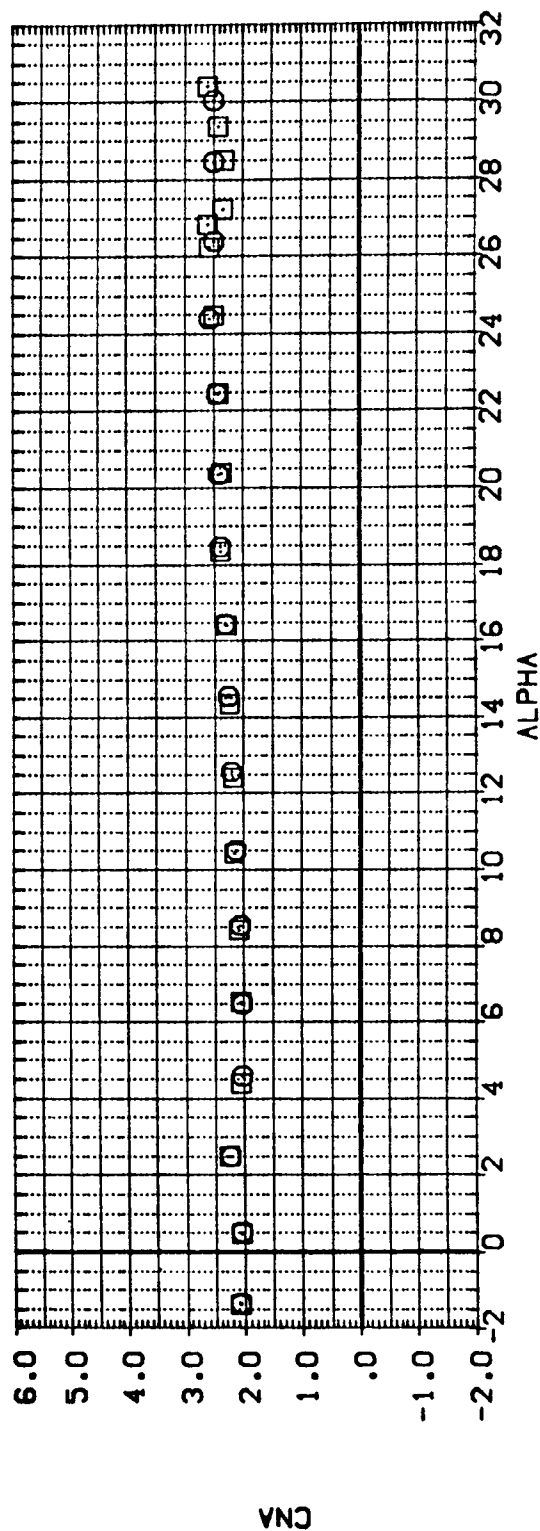
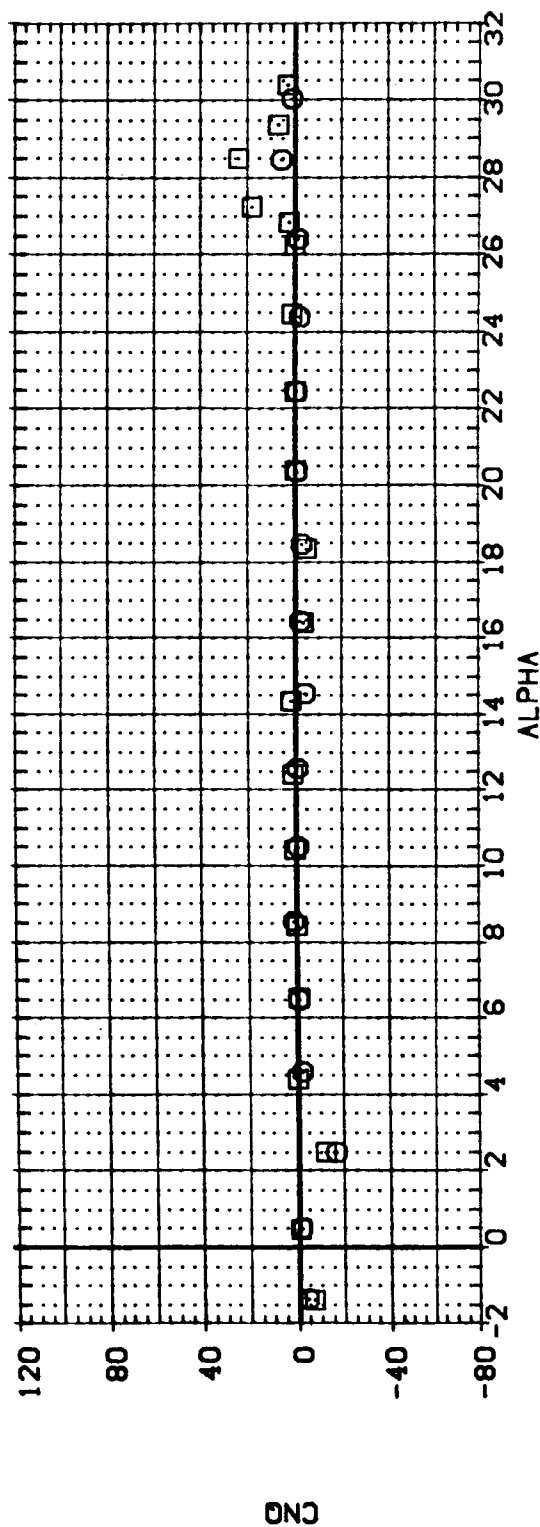


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(C)MACH = 2.36

DATA SET SYMBOL. CONFIGURATION DESCRIPTION CG-LOC ELEVTR BOFLAP RUDELIR  
 { RFGP03 } LA-14, ROCKWELL ORB DB98 V/MOD. NOSE (BVM ) 1.000 .000 40.000  
 { RFGP05 } LA-14, ROCKWELL ORB DB98 V/MOD. NOSE (BVM/F) 1.000 .000 40.000

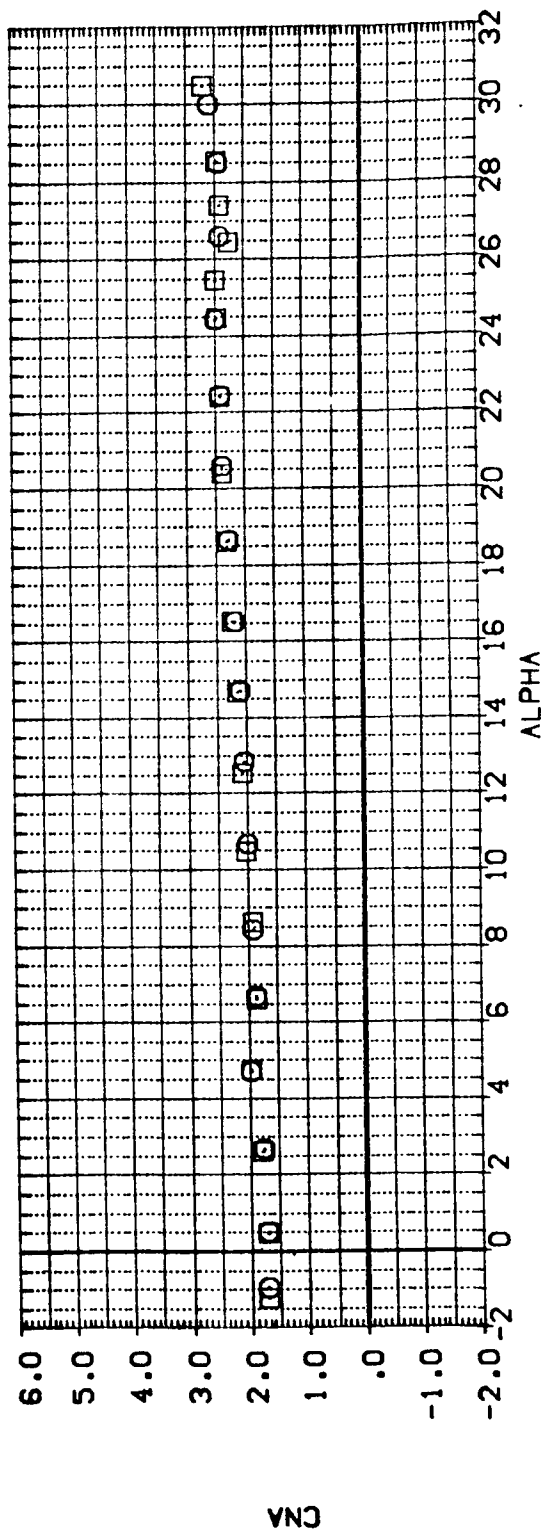
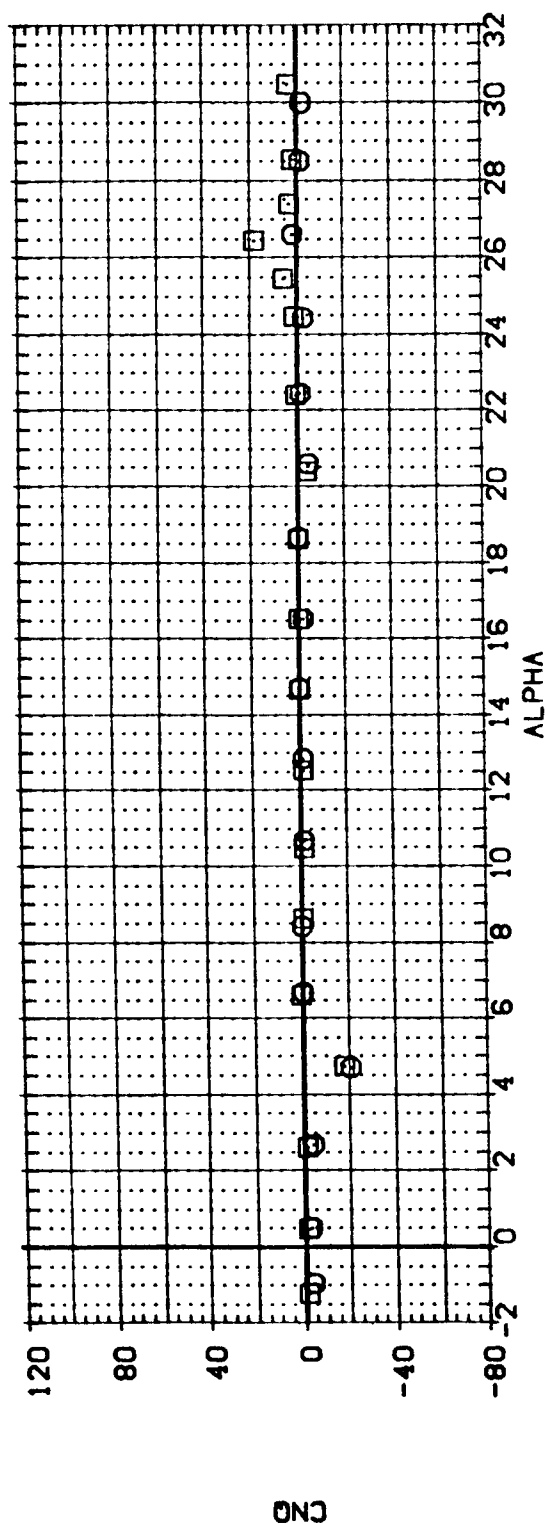


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(C)MACH = 2.86

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RPG03) LA-14, ROCKWELL DRB 0698 V/MOD, NOSE (BVMF)  
 (RPG05) LA-14, ROCKWELL DRB 0698 V/MOD, NOSE (BVMF)

CG-LOC ELEVTR BOFLAP RUOFLR  
 1.000 .000 40.000  
 1.000 .000 40.000

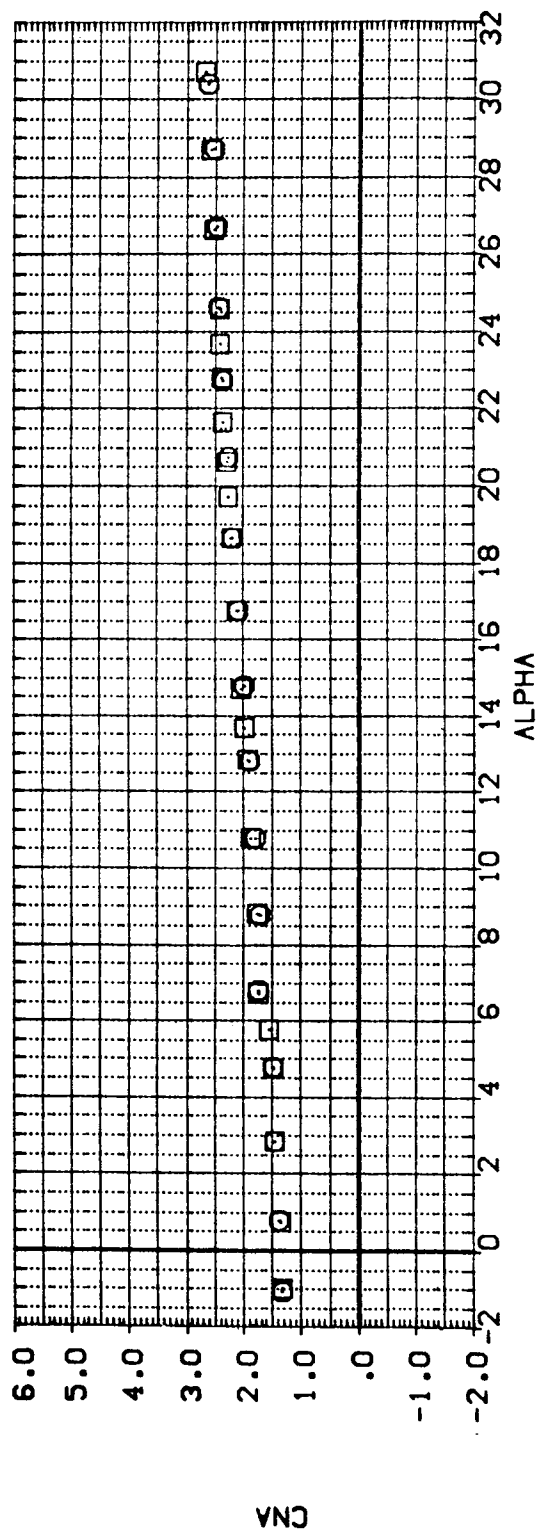
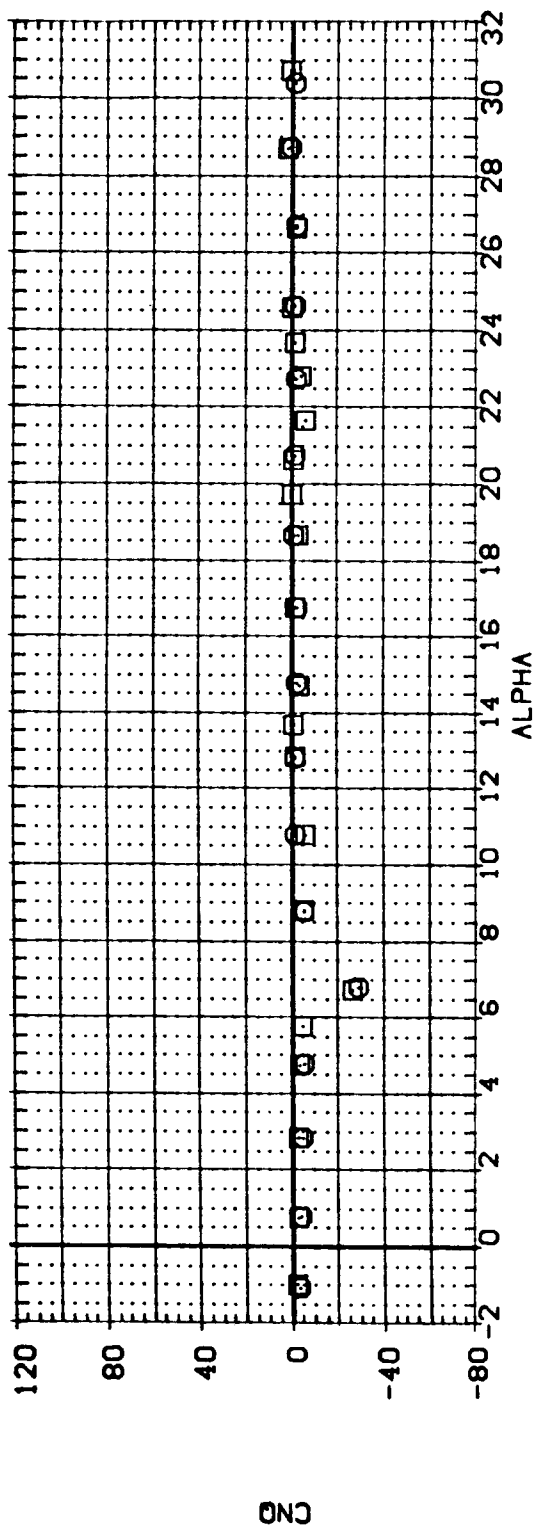


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(E)MACH = 3.96

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BOFLAP      RUOFLR  
 (RPG03)      LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BNVM)      1.000      .000      40.000  
 (RPG05)      LA-14; ROCKWELL ORB 0898 V/MOD; NOSE (BNVM)      1.000      .000      40.000

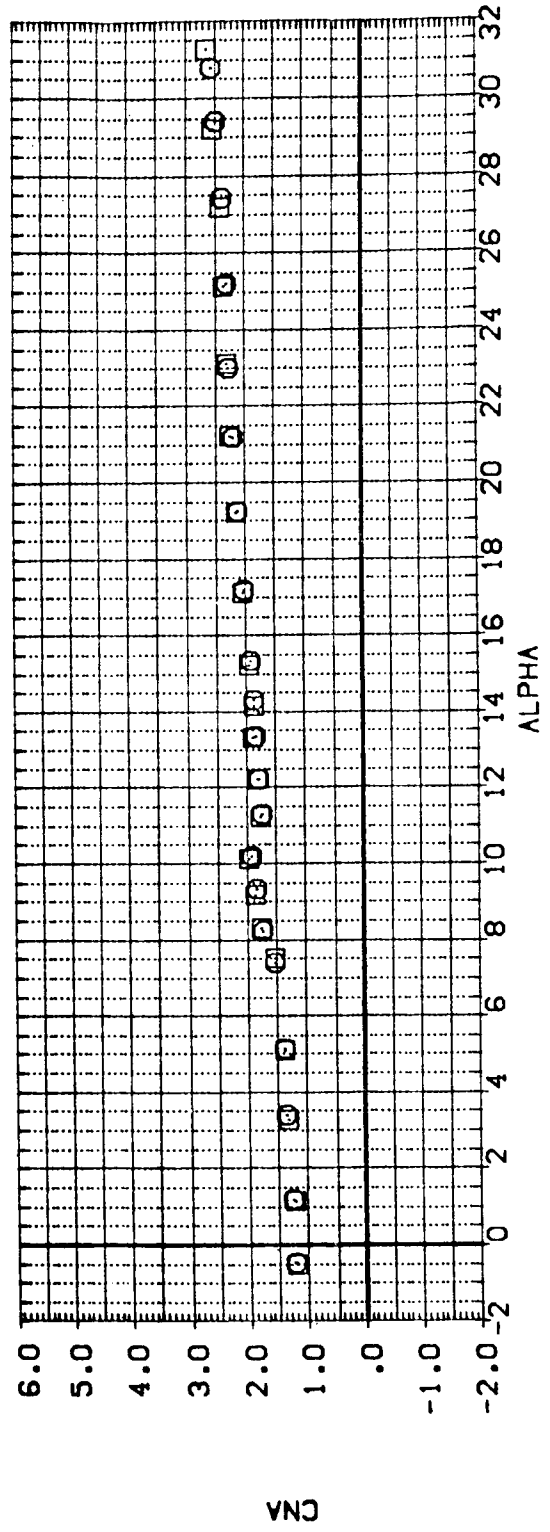
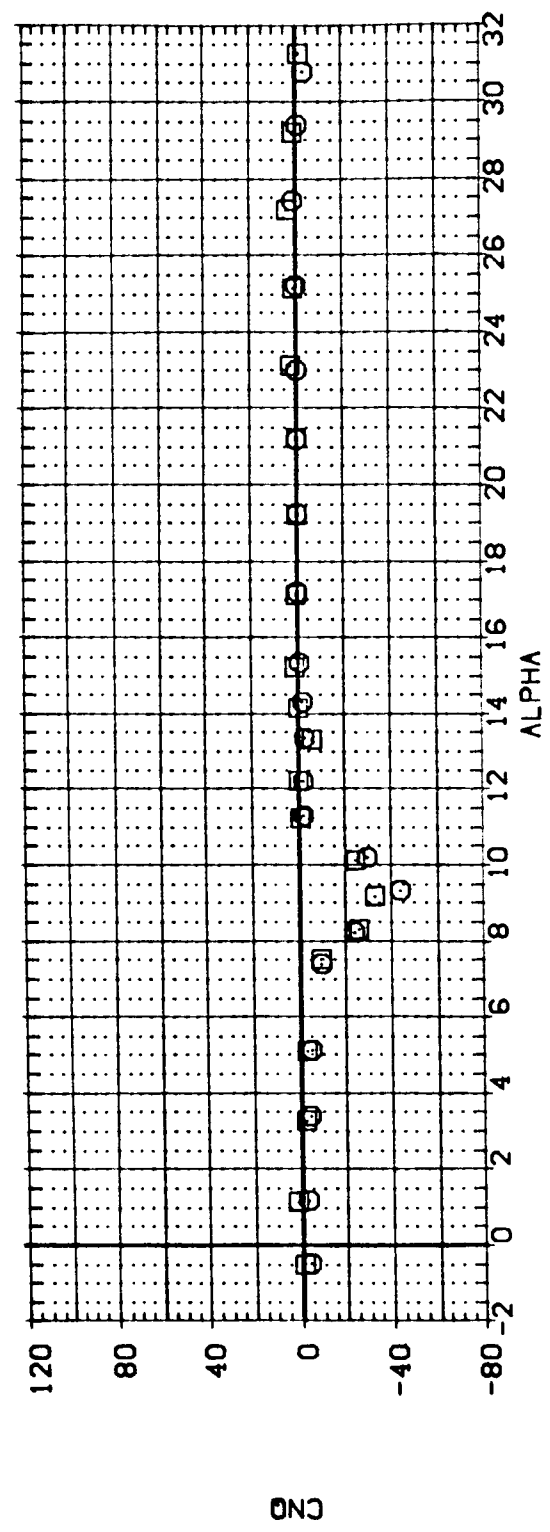


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(F)MACH = 4.63

DATA SET SYMBOL	CONF IGURATION DESCRIPTION	CG-LLOC	ELEVTR	BDFLAP	RUOFLR
[RPG03]	LA-14; ROCKWELL ORB D898 V/MOD. NOSE [BVM ]	1.000	.000	.000	40.000
[RPG05]	LA-14; ROCKWELL ORB D898 V/MOD. NOSE [BVMF]	1.000	.000	.000	40.000

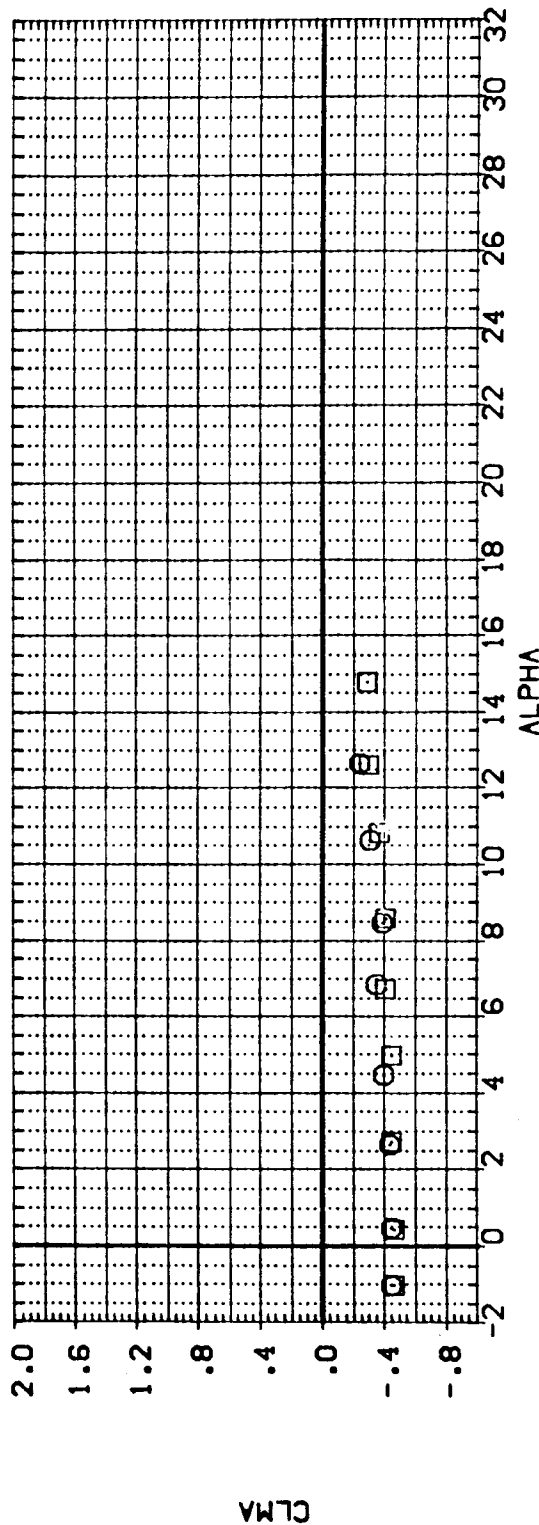
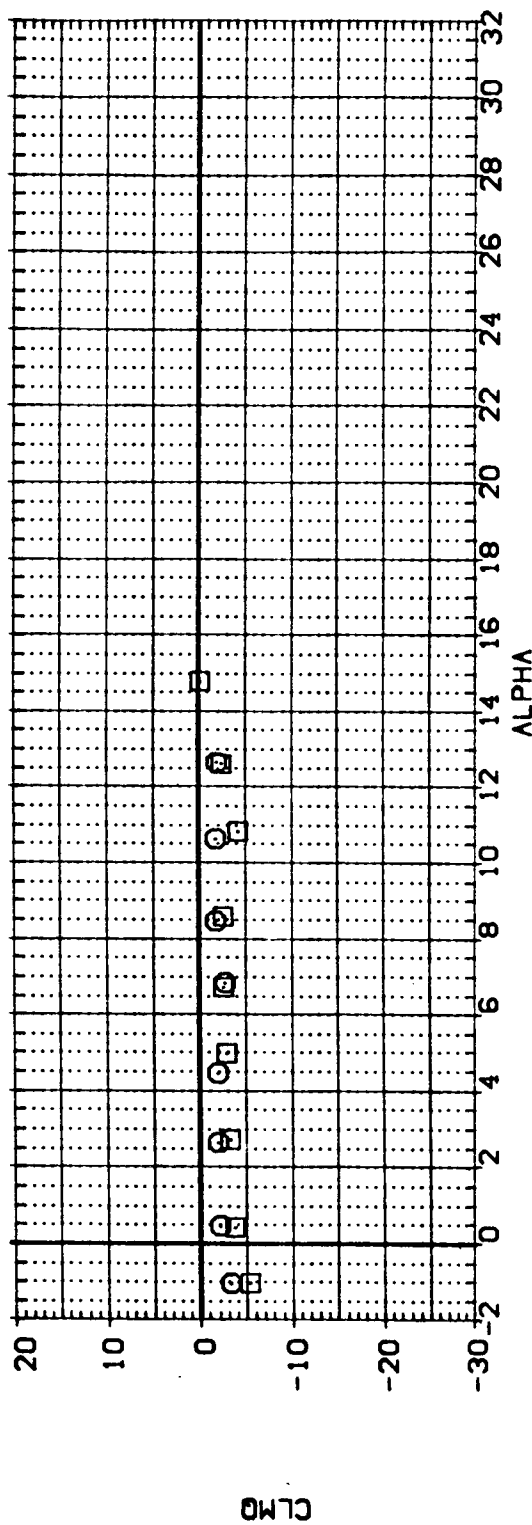


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	BDFLAP	RUDFLR
(RPG03)	LA-14, ROCKWELL ORB 0658 V/MOD, NOSE (BVM)	1.000	.000		40.000
(RPG05)	LA-14, ROCKWELL ORB 0658 V/MOD, NOSE (BVM)	1.000	.000	.000	40.000

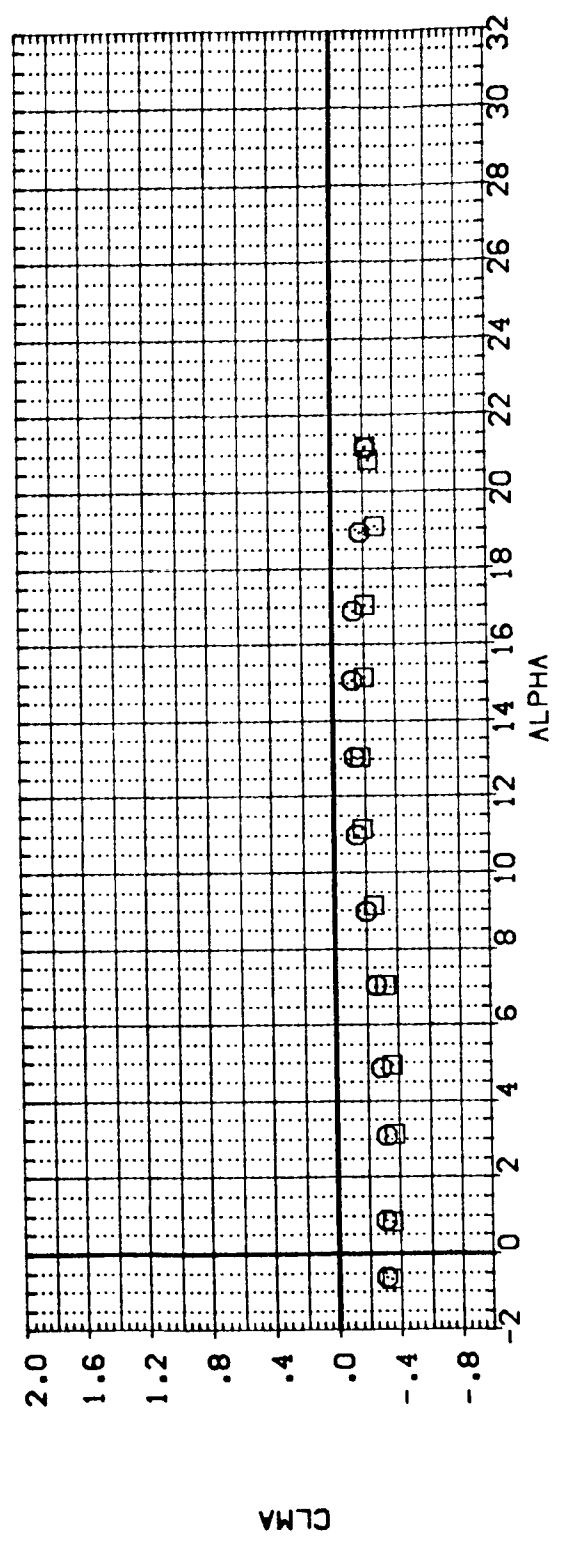
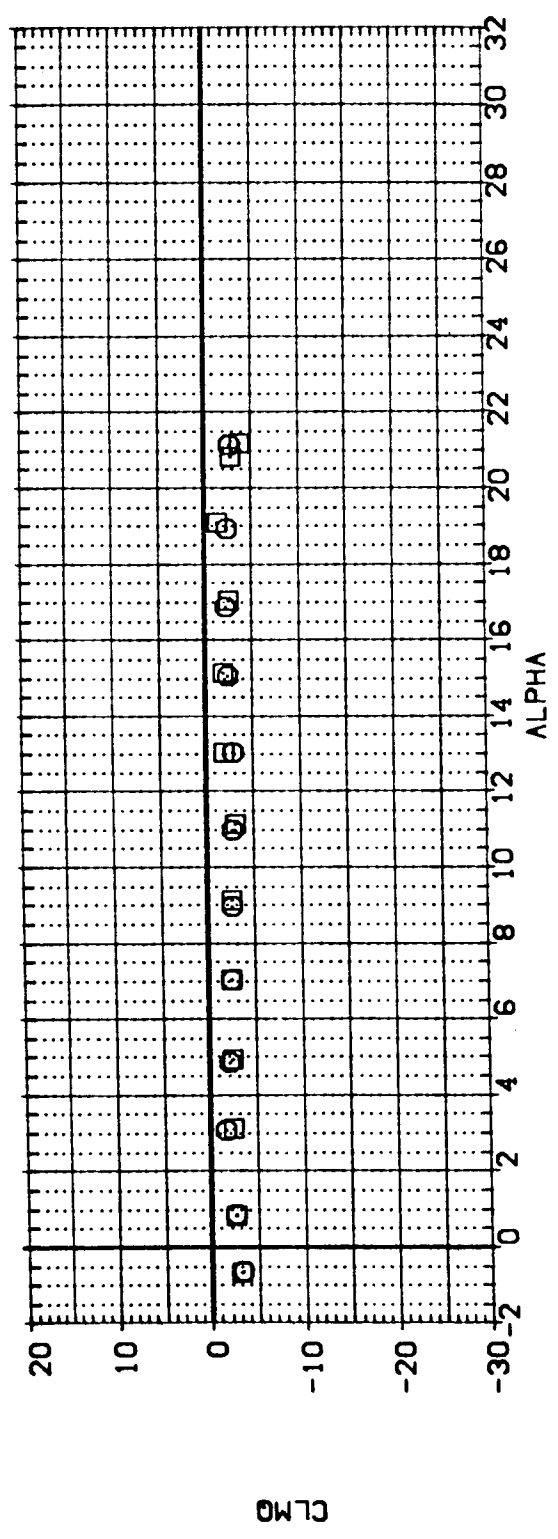


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(B)MACH = 1.90

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BOFLAP      RUOFLR  
 (RPG03)      LA-14; ROCKWELL ORB 0888 V/HOO; NOSE (BVMF)      1.000      .000      .000      40.000  
 (RPG05)      LA-14; ROCKWELL ORB 0888 V/HOO; NOSE (BVMF)      1.000      .000      .000      40.000

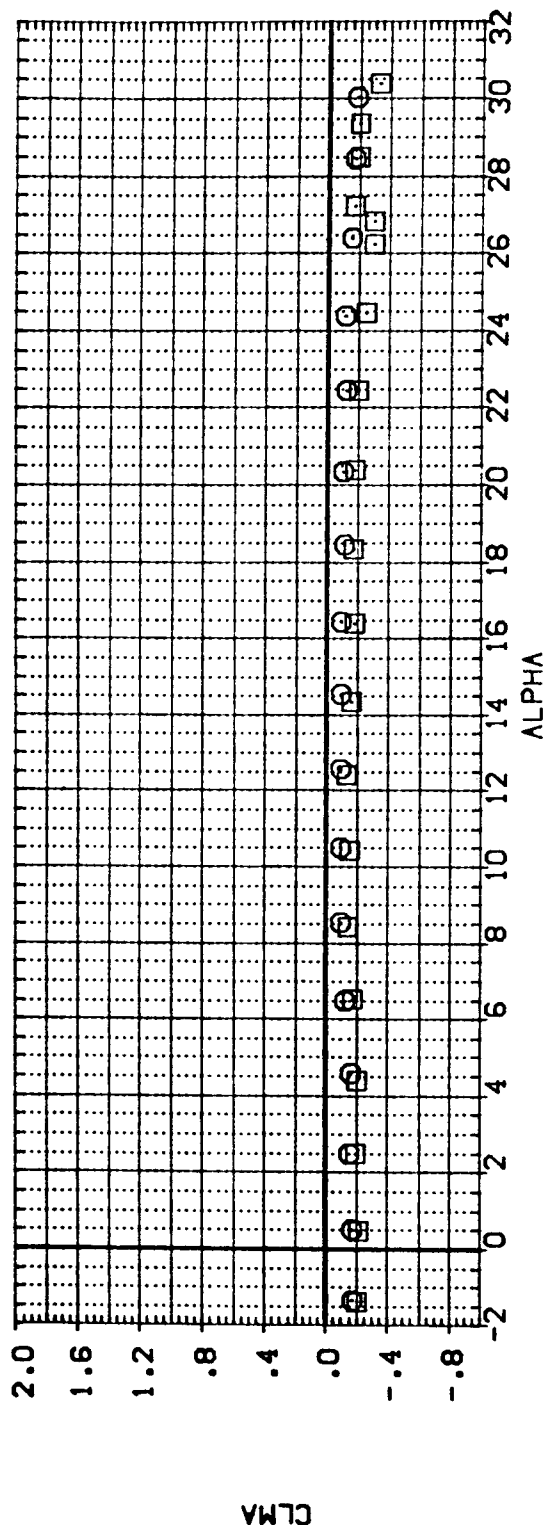
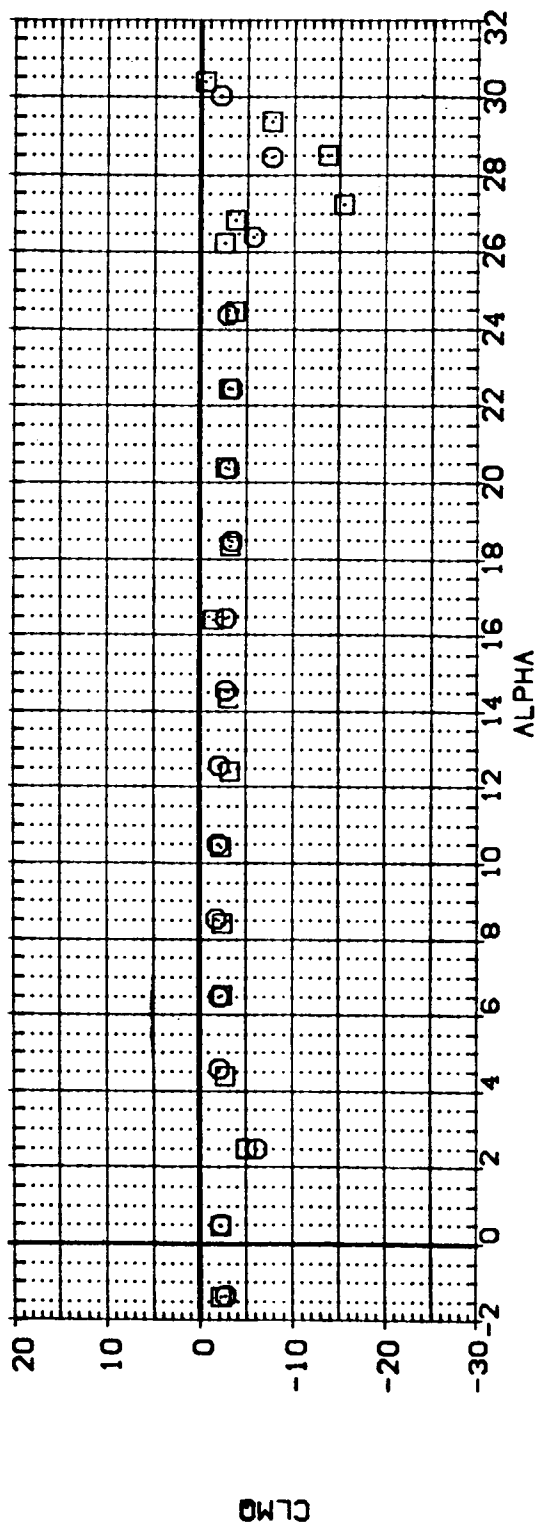


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(C)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CG-LOC	ELEVTR	BDFLAP	RUDFLR
(RPGP03)	LA-14: ROCKWELL ORB 0698 V/MOD: NOSE (BVMF)	1.000	.000	.000	40.000
(RPGP05)	LA-14: ROCKWELL ORB 0698 V/MOD: NOSE (BVMF)	1.000	.000	.000	40.000

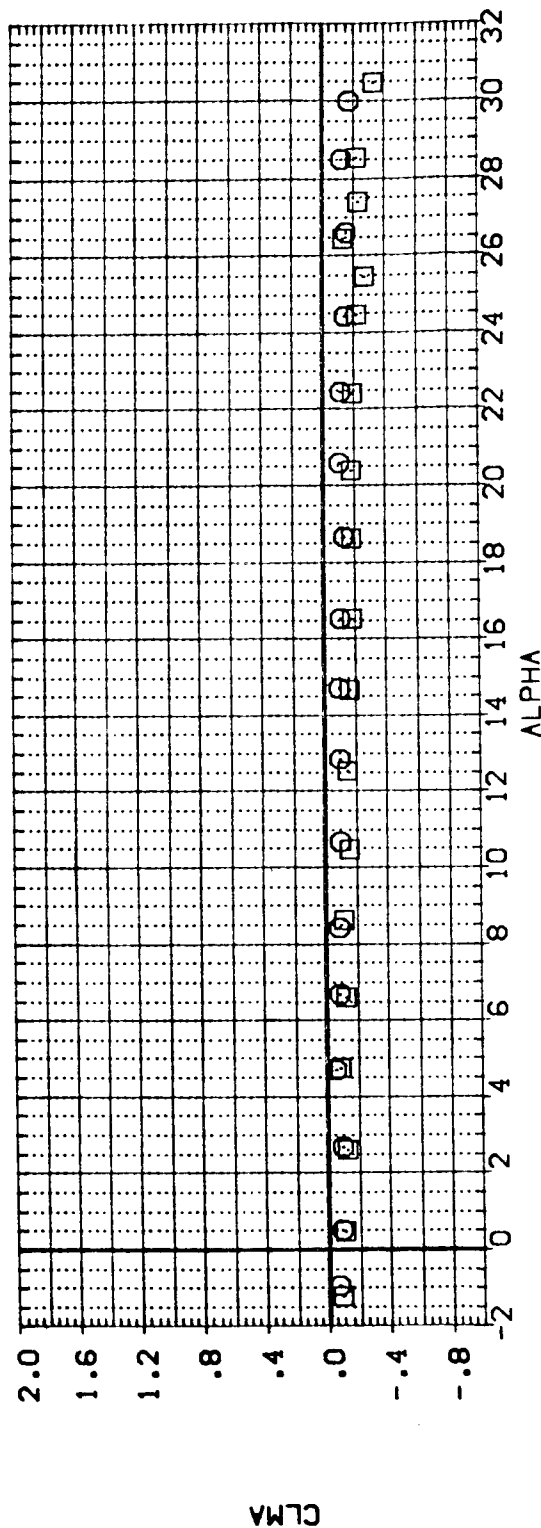
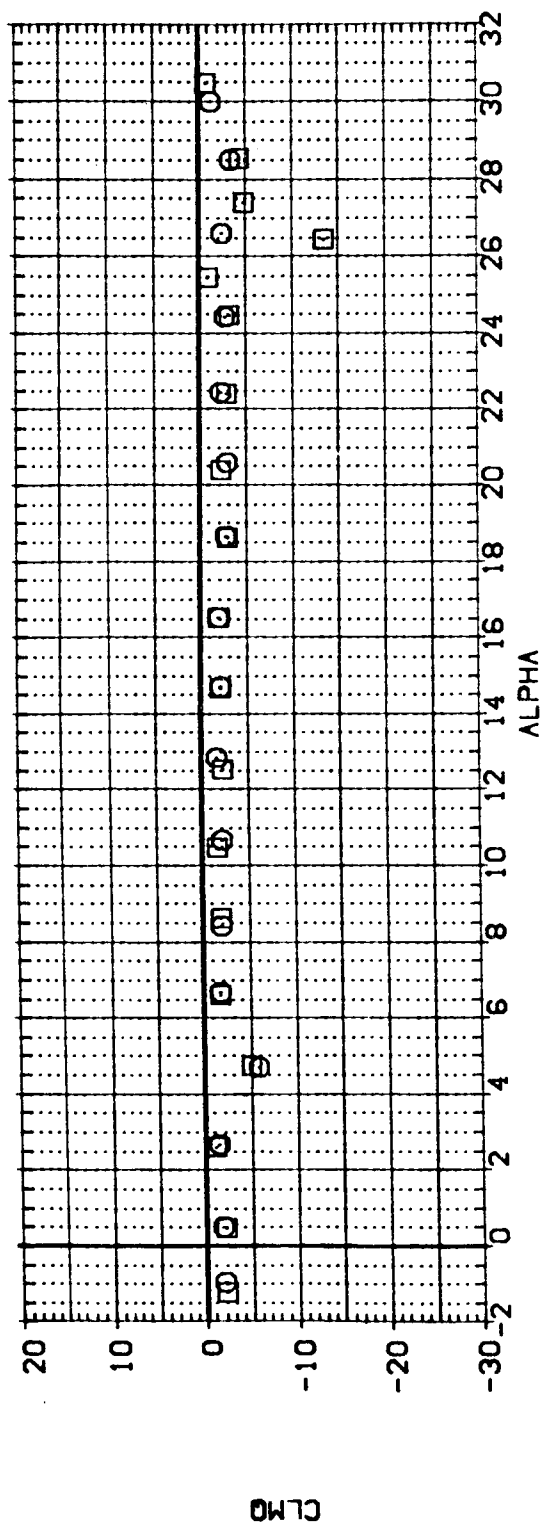


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(COM)MACH = 2.86



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RFGP03) LA-14, ROCKWELL DFB D898 V/MOD, NOSE (BVM )  
 (RFGP05) LA-14, ROCKWELL DFB D898 V/MOD, NOSE (BVMF)

CG-LOC ELEVTR BDFLAP RUOFLR  
 1.000 .000 40.000  
 1.000 .000 40.000

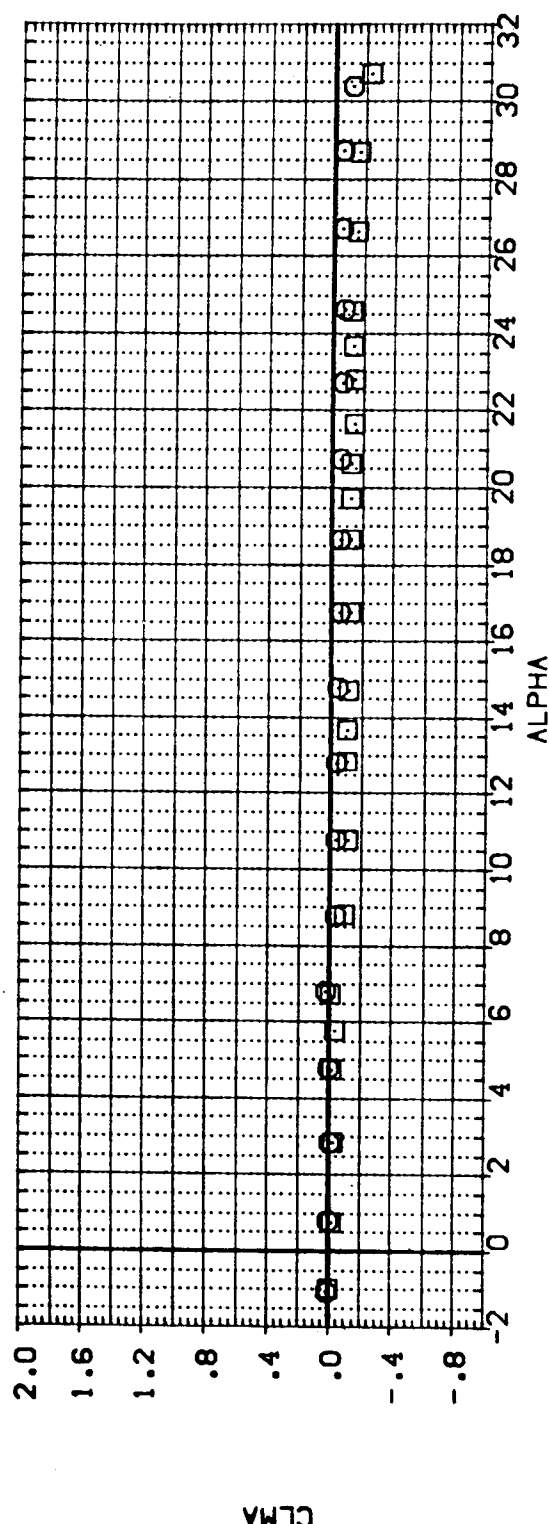
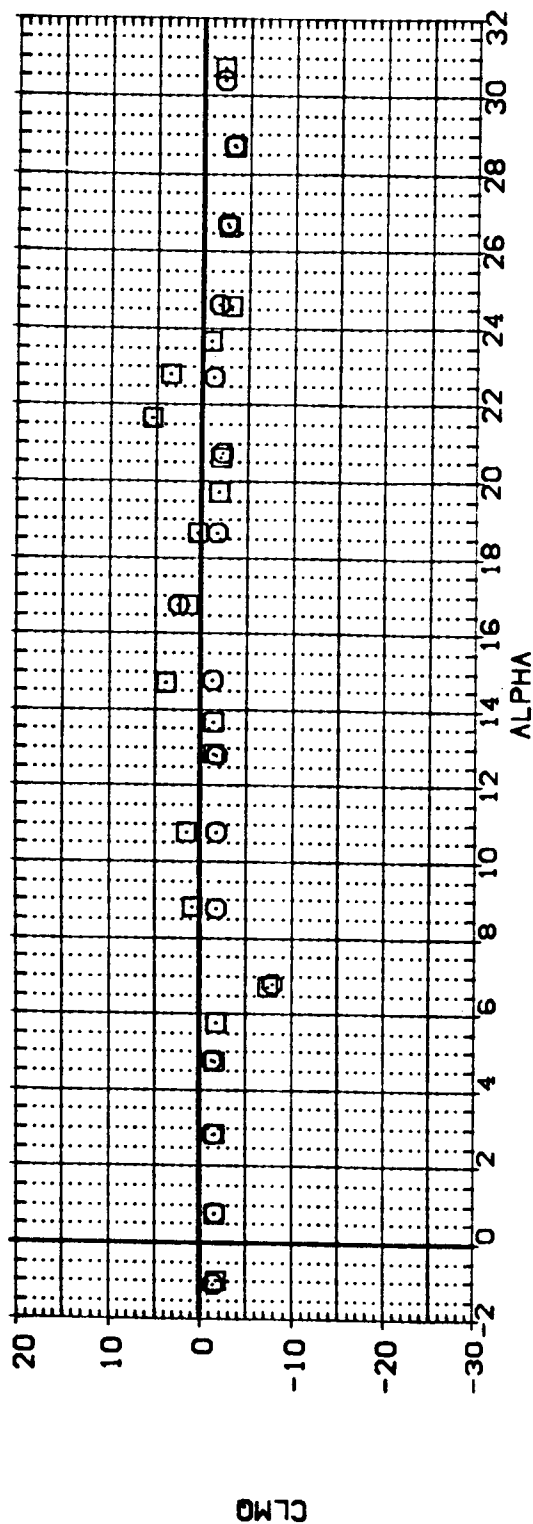


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(E)MACH = 3.96

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      CG-LOC      ELEVTR      BOFLAP      RUOFLR

(RPG03)      LA-14; ROCKWELL ORB 0898 V/MOD. NOSE (BVM.)      1.000      .000      .000      40.000

(RPG05)      LA-14; ROCKWELL ORB 0898 V/MOD. NOSE (BVMF)      1.000      .000      .000      40.000

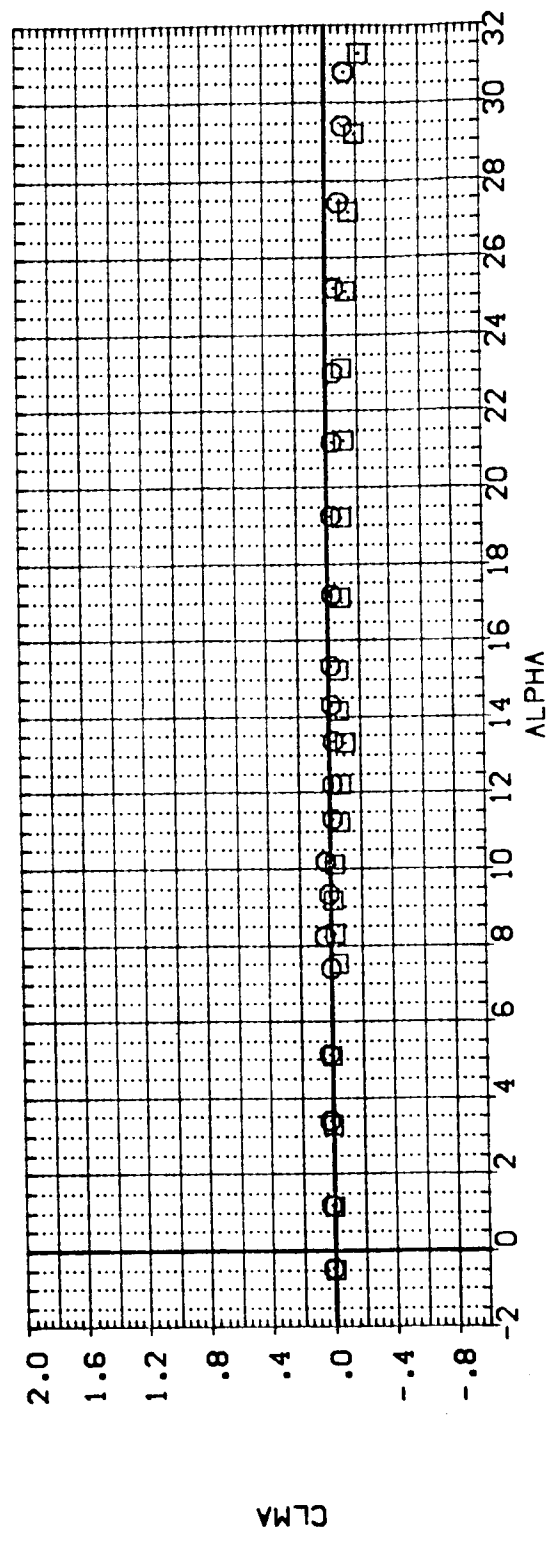
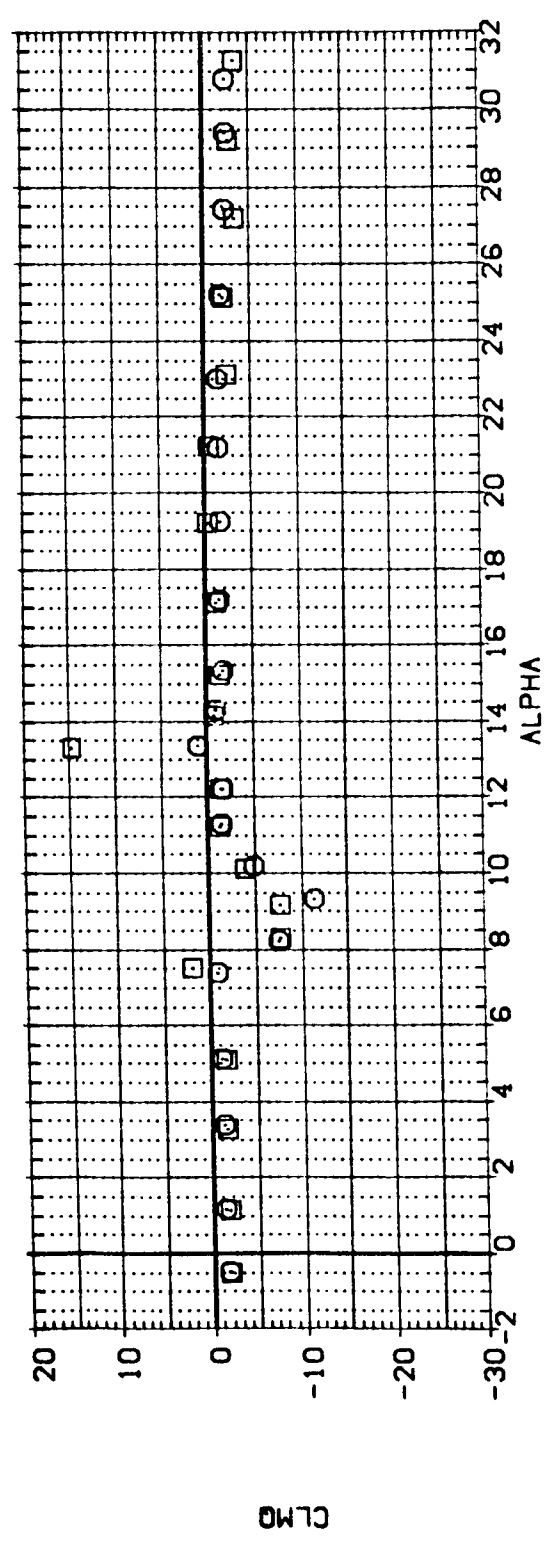


FIGURE 12. EFFECT OF BODY FLAP ON DYNAMIC STABILITY PARAMETERS IN PITCH

(F)MACH = 4.63

PAGE 102

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APPENDIX  
TABULATED SOURCE DATA

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Plotted data tabulations are  
available from DMS on request.

LA-14, ROCKWELL CR8 0888 W/MOD. NOSE (BAY )

(RPGP01)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRTON = 0.000 CG-LCC = 1.000  
 RUFLUR = 40.000

RUN NO. 910/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM2	CLM1	CM2	CM1	Q (KPA)	BETA
2.360	0.416	-1.85233	-0.13342	-2.92393	2.01556	26.82472	0.00000
2.360	4.558	-1.77330	-0.10462	-3.35867	1.93227	26.82472	0.00000
2.360	8.606	-1.75433	-0.08530	-1.24131	2.04328	26.82472	0.00000
2.360	12.631	-2.11583	-0.07684	-3.27281	2.18048	26.82472	0.00000
2.360	16.574	-0.30862	-0.09187	-5.39566	2.31399	26.82472	0.00000
2.360	18.403	-2.33222	-0.08468	-4.39812	2.37027	26.82472	0.00000
2.360	20.469	-1.97990	-0.15478	-0.85113	2.40470	26.82472	0.00000
2.360	22.427	-2.75672	-0.06690	-0.86225	2.36412	26.82472	0.00000
2.360	24.372	-5.96486	-0.08373	3.27502	2.44158	26.82472	0.00000
2.360	26.477	-3.66493	-0.13439	-0.37774	2.54797	26.82472	0.00000
2.360	28.471	-7.05555	-0.09437	-3.50536	2.45892	26.82472	0.00000
2.360	30.094	-4.32730	-0.15963	-9.07355	2.62416	26.82472	0.00000
GRADIENT		0.01908	0.00693	-0.10496	-0.01528	0.00000	0.00000

RUN NO. 911/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM2	CLM1	CM2	CM1	Q (KPA)	BETA
2.860	0.584	-1.50826	-0.04397	-4.24644	1.66884	23.67863	0.00000
2.860	4.477	-5.67773	-0.00382	-20.61896	1.89763	23.67863	0.00000
2.860	8.653	-2.03087	-0.06418	-2.66236	1.88310	23.67863	0.00000
2.860	12.652	-1.93783	-0.06019	-1.14805	2.02828	23.67863	0.00000
2.860	16.573	1.82875	-0.10705	-9.39787	2.24733	23.67863	0.00000
2.860	18.503	-2.32708	-0.10800	-1.88983	2.27031	23.67863	0.00000
2.860	20.569	-2.74403	-0.12192	-2.78636	2.36785	23.67863	0.00000
2.860	22.616	-2.75069	-0.11800	-1.21237	2.40010	23.67863	0.00000
2.860	24.539	-3.08899	-0.09250	-2.29821	2.41307	23.67863	0.00000
2.860	26.424	-2.26142	-0.13102	-0.15139	2.44545	23.67863	0.00000
2.860	28.615	6.76040	-0.13877	13.44208	2.28934	23.67863	0.00000
2.860	27.459	-3.31636	-0.07700	5.19942	2.33744	23.67863	0.00000
2.860	28.598	-7.51130	-0.05536	-2.57666	2.40132	23.67863	0.00000
2.860	30.221	-2.59636	-0.14072	-3.34873	2.47187	23.67863	0.00000
GRADIENT		-1.07102	0.01029	-4.20560	0.05892	-0.00000	0.00000

LA-14, ROOSEVELT ORB 0898 W/MD. NOSE (BAY )

(RPGP01)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRRON = 0.000 CG-LOC = 1.000  
 RUFLR = 40.000

RUN NO. 912/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM3	CLM4	QW3	QW4	Q (KPA)	BETA
3.960	0.689	-1.53231	0.03139	-5.22241	1.32242	17.62188	0.00000
3.960	4.818	-1.55235	0.03932	-6.52062	1.44335	17.62188	0.00000
3.960	8.488	-1.83077	0.00848	-3.87252	1.63197	17.62188	0.00000
3.960	12.680	-1.88081	-0.01318	-1.83710	1.84980	17.62188	0.00000
3.960	16.760	-1.74944	-0.04673	-0.76810	2.06631	17.62188	0.00000
3.960	18.762	-1.64727	-0.09809	-0.98860	2.17909	17.62188	0.00000
3.960	20.809	-1.92684	-0.04691	-1.08799	2.28557	17.62188	0.00000
3.960	22.856	-2.09966	-0.06564	-0.17017	2.35592	17.62188	0.00000
3.960	24.766	-2.92222	-0.06837	-4.44377	2.44365	17.62188	0.00000
3.960	26.741	-3.10115	-0.07242	-3.15089	2.51343	17.62188	0.00000
3.960	28.968	-1.86916	-0.07660	23.58394	2.41162	17.62188	0.00000
3.960	30.394	-3.01387	-0.08666	1.34638	2.54557	17.62188	0.00000
GRADIENT		-0.00485	0.00192	-0.31441	0.02929	0.00000	0.00000

RUN NO. 913/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM3	CLM4	QW3	QW4	Q (KPA)	BETA
4.630	1.091	-1.35200	0.05193	-5.51240	1.20449	13.92910	0.00000
4.630	3.363	-1.42398	0.06098	-6.02028	1.28957	13.92910	0.00000
4.630	5.388	-1.41058	0.06055	-6.69498	1.34833	13.92910	0.00000
4.630	7.054	-1.27399	0.04676	-5.67955	1.41271	13.92910	0.00000
4.630	8.173	-7.69661	0.07498	-20.34528	1.70115	13.92910	0.00000
4.630	9.197	-11.71606	0.06635	-40.84998	1.77199	13.92910	0.00000
4.630	10.219	-6.30889	0.02696	-22.80689	1.86866	13.92910	0.00000
4.630	11.318	-1.54539	-0.01509	-0.89464	1.75246	13.92910	0.00000
4.630	13.275	-2.89115	-0.00377	-4.62800	1.89428	13.92910	0.00000
4.630	15.292	-1.71506	-0.02154	-0.55505	1.93938	13.92910	0.00000
4.630	17.368	-2.16532	-0.03171	-0.54097	2.05572	13.92910	0.00000
4.630	19.245	-2.00416	-0.02582	0.24136	2.15970	13.92910	0.00000
4.630	21.471	-2.04349	-0.02380	1.25210	2.25650	13.92910	0.00000
4.630	23.186	-1.65795	-0.04537	0.46865	2.32283	13.92910	0.00000
4.630	25.270	-2.53112	-0.06244	2.25284	2.37907	13.92910	0.00000
4.630	27.494	-3.38704	-0.08646	1.56077	2.41867	13.92910	0.00000
4.630	29.248	-2.46087	-0.13512	-1.76553	2.55598	13.92910	0.00000
4.630	30.830	-3.71072	-0.12192	-4.70440	2.60828	13.92910	0.00000
GRADIENT		-0.03168	0.00398	-0.22354	0.03745	0.00000	0.00000

(RPGP03)

LA-14, ROOSEVELT CRB 0898 W/NO. NOSE (BMM )

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AILRON = 0.000 CG-LOC = 1.000  
 RUFLR = 40.000

RUN NO. 603/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM2	CLM4	QW2	QW4	Q (KPA)	BETA
1.600	-1.048	-3.24103	-0.45270	-9.63767	2.80279	23.01698	0.00000
1.600	0.478	-2.14848	-0.45241	-0.57144	2.75083	23.01698	0.00000
1.600	2.635	-1.94920	-0.43328	-1.37268	2.72708	23.01698	0.00000
1.600	4.460	-1.90444	-0.40318	-1.08078	2.70561	23.01698	0.00000
1.600	6.827	-2.74517	-0.35130	0.50678	2.59355	23.01698	0.00000
1.600	8.451	-1.81781	-0.39368	1.60417	2.67082	23.01698	0.00000
1.600	10.639	-1.75110	-0.31462	-1.71853	2.56019	23.01698	0.00000
1.600	12.642	-1.86956	-0.24471	-4.45237	2.51227	23.01698	0.00000
GRADIENT		0.21793	0.00609	1.25686	-0.01529	0.00000	0.00000

RUN NO. 604/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM2	CLM4	QW2	QW4	Q (KPA)	BETA
1.900	-0.632	-3.14195	-0.31238	-2.22029	2.38074	22.93458	0.00000
1.900	0.866	-2.48291	-0.31175	4.41367	2.36183	22.93458	0.00000
1.900	3.065	-1.62400	-0.32136	-1.00516	2.35211	22.93458	0.00000
1.900	4.869	-2.01664	-0.29467	0.08978	2.29372	22.93458	0.00000
1.900	7.037	-2.47521	-0.26554	0.29769	2.23157	22.93458	0.00000
1.900	8.981	-2.57912	-0.20636	0.10223	2.21438	22.93458	0.00000
1.900	10.983	-2.69511	-0.14975	-0.17840	2.18912	22.93458	0.00000
1.900	13.046	-2.89984	-0.14005	0.55573	2.27460	22.93458	0.00000
1.900	15.040	-2.43748	-0.12625	-1.15939	2.30974	22.93458	0.00000
1.900	16.882	-2.22178	-0.13649	-1.66535	2.37245	22.93458	0.00000
1.900	18.337	-2.41000	-0.18747	-0.44049	2.43105	22.93458	0.00000
1.900	21.162	-2.68381	-0.22470	-0.00297	2.46527	22.93458	0.00000
GRADIENT		0.22598	0.00228	-0.00480	-0.01440	0.00000	0.00000

## LA-14, ROCKWELL CRB 0898 W/MOD. NOSE (BMM)

(RPGP03)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ATURON = 0.000 CG-LOC = 1.000  
 RUDEFLR = 40.000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 906/ 0

MACH	ALPHA	CLM3	CLM4	Q3	Q4	Q (KPA)	BETA
2.360	-1.349	-2.70790	-0.17677	-4.06242	2.07441	26.82472	0.00000
2.360	0.493	-2.20522	-0.17782	-1.75456	2.05044	26.82472	0.00000
2.360	2.492	-6.15981	-0.15993	-16.55954	2.24255	26.82472	0.00000
2.360	4.565	-2.09733	-0.16099	-1.64813	2.03452	26.82472	0.00000
2.360	6.482	-1.99797	-0.12774	-1.14794	2.02022	26.82472	0.00000
2.360	8.547	-1.70168	-0.09904	1.17463	2.06258	26.82472	0.00000
2.360	10.529	-1.92635	-0.09897	-0.95998	2.14035	26.82472	0.00000
2.360	12.563	-2.09445	-0.09780	-0.70750	2.19553	26.82472	0.00000
2.360	14.532	-2.69245	-0.09432	-3.86753	2.25405	26.82472	0.00000
2.360	16.454	-2.70850	-0.09912	-2.42598	2.30864	26.82472	0.00000
2.360	18.469	-3.32944	-0.11645	-2.81074	2.39271	26.82472	0.00000
2.360	20.363	-3.03953	-0.10396	-1.08917	2.41188	26.82472	0.00000
2.360	22.436	-3.32678	-0.12173	-0.58923	2.45202	26.82472	0.00000
2.360	24.399	-2.92573	-0.11542	-2.37738	2.56460	26.82472	0.00000
2.360	26.387	-5.68130	-0.15822	-1.70337	2.50522	26.82472	0.00000
2.360	28.471	-7.62435	-0.17267	5.85296	2.49742	26.82472	0.00000
2.360	30.039	-2.03177	-0.18072	0.85506	2.49987	26.82472	0.00000
GRADIENT		-0.08957	0.00336	-0.39636	0.00325	0.00000	0.00000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 907/ 0

MACH	ALPHA	CLM3	CLM4	Q3	Q4	Q (KPA)	BETA
2.860	-0.947	-1.92454	-0.06544	-3.57596	1.71345	23.67863	0.00000
2.860	0.502	-1.68236	-0.08442	-2.54729	1.71159	23.67863	0.00000
2.860	2.696	-1.40194	-0.09550	-3.97502	1.77828	23.67863	0.00000
2.860	4.691	-5.79294	-0.05961	-20.08298	1.97511	23.67863	0.00000
2.860	6.697	-1.74696	-0.08842	0.11870	1.87628	23.67863	0.00000
2.860	8.401	-1.93767	-0.09419	-0.31044	1.90918	23.67863	0.00000
2.860	10.668	-1.99366	-0.09833	-1.55475	1.98778	23.67863	0.00000
2.860	12.837	-1.63917	-0.09781	-1.19881	2.06048	23.67863	0.00000
2.860	14.718	-2.03117	-0.09314	-0.33349	2.10676	23.67863	0.00000
2.860	16.507	-1.94380	-0.10814	-2.07769	2.18873	23.67863	0.00000
2.860	18.648	-2.76053	-0.13313	-0.25681	2.27433	23.67863	0.00000
2.860	20.609	-2.95412	-0.10978	-4.73757	2.37995	23.67863	0.00000
2.860	22.450	-2.18567	-0.11629	-1.54432	2.42251	23.67863	0.00000
2.860	24.446	-2.74377	-0.14142	-2.89433	2.48769	23.67863	0.00000
2.860	26.608	-2.45517	-0.15821	1.93477	2.41969	23.67863	0.00000
2.860	28.503	-3.39300	-0.12421	-1.60108	2.45564	23.67863	0.00000
2.860	30.016	-1.28728	-0.17532	-2.05969	2.59494	23.67863	0.00000
GRADIENT		-0.61250	0.00065	-2.75141	0.04566	0.00000	0.00000

(RPGP03)

LA-14, ROOSEVELT CRB 0898 W/MCD, NOSE (BMM)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRCON = 0.000 CG-LOC = 1.000  
 RUOFLR = 40.000

RUN NO. 908/ 0 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CLM3	CLM4	QV3	QV4	Q (KPA)	BETA
3.960	-1.056	-1.48444	0.01125	-3.49490	1.32128	17.62188	0.00000
3.960	0.798	-1.52310	-0.00163	-4.03590	1.36197	17.62188	0.00000
3.960	2.846	-1.44125	-0.00945	-4.65669	1.45078	17.62188	0.00000
3.960	4.798	-1.19932	0.00001	-5.08228	1.48828	17.62188	0.00000
3.960	6.791	-7.96072	0.02079	-28.66853	1.73293	17.62188	0.00000
3.960	8.787	-1.66295	-0.03861	-5.14119	1.71765	17.62188	0.00000
3.960	10.802	-1.75870	-0.04144	-1.27951	1.79079	17.62188	0.00000
3.960	12.812	-1.71023	-0.03909	-1.74699	1.89359	17.62188	0.00000
3.960	14.780	-1.23947	-0.04582	-2.34127	1.96961	17.62188	0.00000
3.960	16.740	2.56108	-0.05842	-2.23677	2.07253	17.62188	0.00000
3.960	18.663	-1.68205	-0.06011	-0.74863	2.17593	17.62188	0.00000
3.960	20.742	-2.15074	-0.08226	-1.28284	2.27127	17.62188	0.00000
3.960	22.710	-1.27059	-0.06857	-1.92704	2.35912	17.62188	0.00000
3.960	24.646	-1.69254	-0.07950	-1.74899	2.43473	17.62188	0.00000
3.960	26.741	-2.57329	-0.08238	-1.99497	2.47148	17.62188	0.00000
3.960	28.757	-3.20210	-0.08603	0.29085	2.51419	17.62188	0.00000
3.960	30.380	-2.22209	-0.11312	-1.34334	2.61772	17.62188	0.00000
GRADIENT		0.04810	-0.00210	-0.27447	0.03016	0.00000	0.00000



LA-14, ROCKWELL ORB D888 W/MCD. NOSE (BMM)

(RRGP03)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ATLRON = 0.000 CG-LCC = 1.000  
 RUDFLR = 40.000

RUN NO. 908/ 0 GRADIENT INTERVAL = -9.00/ 5.00

MACH	ALPHA	CLM2	CLM4	ON2	ON4	BETA
4.630	-0.475	-1.55644	0.01144	-3.17980	1.21485	0.00000
4.630	1.180	-1.30846	0.02103	-2.84510	1.23445	0.00000
4.630	3.377	-1.24831	0.02178	-4.14033	1.34482	0.00000
4.630	5.154	-1.15629	0.02409	-4.89626	1.38592	0.00000
4.630	7.374	-0.74603	0.03028	-9.09733	1.52326	0.00000
4.630	8.227	-7.50150	0.03967	-23.80199	1.73917	0.00000
4.630	9.343	-11.35959	0.01266	-43.90401	1.83328	0.00000
4.630	10.206	-4.82521	0.03495	-29.71684	1.91134	0.00000
4.630	11.305	-1.45007	-0.01567	-2.30545	1.75102	0.00000
4.630	12.198	-1.60344	-0.01972	-2.28718	1.78625	0.00000
4.630	13.368	1.03047	-0.02626	-2.81281	1.84564	0.00000
4.630	14.305	-0.95504	-0.02257	-2.22018	1.87596	0.00000
4.630	15.322	-1.74330	-0.01537	-0.53676	1.91805	0.00000
4.630	17.190	-1.48167	-0.03110	0.05509	2.01710	0.00000
4.630	19.245	-1.59052	-0.02859	-0.48141	2.12844	0.00000
4.630	21.179	-1.43296	-0.03772	0.03041	2.21343	0.00000
4.630	23.013	-1.34651	-0.04863	0.01712	2.28446	0.00000
4.630	25.216	-1.66917	-0.05786	-0.28894	2.32452	0.00000
4.630	27.447	-2.29181	-0.08862	1.01105	2.39498	0.00000
4.630	29.411	-2.35607	-0.11538	-1.05894	2.50353	0.00000
4.630	30.775	-2.36120	-0.12809	-3.28873	2.57014	0.00000
GRADIENT		0.07722	0.00256	-0.26744	0.03462	0.00000

## LA-14, ROCKWELL CRB 0898 WIND, NOSE (BMMF)

(RPGP03)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALURON = 0.000 CG-LOC = 1.000  
 RUDFLR = 40.000 BDFLAP = 0.000

RUN NO. 601/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM2	CLM1	QW2	QW1	Q (KPA)	BETA
1.600	-1.014	-5.32997	-0.47194	-4.61679	2.61049	23.01698	0.00000
1.600	0.425	-3.63059	-0.46841	1.06400	2.73384	23.01698	0.00000
1.600	2.716	-3.19691	-0.44665	1.07032	2.72266	23.01698	0.00000
1.600	4.968	-2.81523	-0.44827	0.91587	2.72026	23.01698	0.00000
1.600	6.707	-2.49147	-0.41077	0.74013	2.65025	23.01698	0.00000
1.600	8.577	-2.49830	-0.40877	0.69125	2.70242	23.01698	0.00000
1.600	10.837	-4.21846	-0.36533	0.60512	2.59182	23.01698	0.00000
1.600	12.596	-2.33751	-0.30667	-0.87364	2.54981	23.01698	0.00000
1.600	14.775	-0.11165	-0.29069	-4.39387	2.55778	23.01698	0.00000
GRADIENT		0.37467	0.00458	0.74297	-0.01294	0.00000	0.00000

RUN NO. 602/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM2	CLM1	QW2	QW1	Q (KPA)	BETA
1.900	-0.680	-3.05795	-0.33772	-2.28128	2.38223	22.93458	0.00000
1.900	0.839	-2.49125	-0.39007	-2.43875	2.37457	22.93458	0.00000
1.900	3.119	-2.32223	-0.37455	-1.18132	2.37970	22.93458	0.00000
1.900	4.923	-2.40603	-0.36522	-1.95774	2.38904	22.93458	0.00000
1.900	7.037	-2.43075	-0.32170	-0.11763	2.26482	22.93458	0.00000
1.900	9.133	-2.57256	-0.24606	-0.28638	2.23863	22.93458	0.00000
1.900	11.160	-3.08861	-0.18766	0.42882	2.24221	22.93458	0.00000
1.900	13.046	-1.85276	-0.17238	-0.37695	2.28825	22.93458	0.00000
1.900	15.146	-1.96197	-0.20299	-0.17518	2.37870	22.93458	0.00000
1.900	17.047	-2.59660	-0.21180	-0.78576	2.41127	22.93458	0.00000
1.900	19.073	-1.48528	-0.27841	0.25593	2.48365	22.93458	0.00000
1.900	20.830	-2.68749	-0.24727	-1.06081	2.50873	22.93458	0.00000
1.900	21.202	-3.79281	-0.22272	2.12581	2.48285	22.93458	0.00000
GRADIENT		0.10770	-0.00408	0.12534	-0.00947	0.00000	0.00000

## LA-14, RCONJELL ORB 0898 WIND, NOISE (BAMF)

(RFGPOS)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRCON = 0.000 CG-LCC = 1.000  
 RUDFLR = 40.000 BDFLAP = 0.000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 901/ 0

MACH	ALPHA	CLM2	CLM4	ON2	QVA	Q (KPA)	BETA
2.360	-1.376	-2.25707	-0.20311	-6.41120	2.06745	26.82472	0.00000
2.360	0.462	-2.17560	-0.20997	-0.84154	2.05676	26.82472	0.00000
2.360	2.478	-3.03176	-0.19652	-11.85635	2.26619	26.82472	0.00000
2.360	4.390	-2.65015	-0.20573	-0.20082	2.06077	26.82472	0.00000
2.360	6.522	-2.32859	-0.17778	-1.11718	2.04892	26.82472	0.00000
2.360	8.434	-2.31412	-0.14547	-0.14488	2.08101	26.82472	0.00000
2.360	10.423	-2.17959	-0.15735	0.59659	2.16793	26.82472	0.00000
2.360	12.398	-3.17540	-0.13861	0.89634	2.18249	26.82472	0.00000
2.360	14.334	-3.07926	-0.16063	1.50716	2.22363	26.82472	0.00000
2.360	16.407	-1.47008	-0.18469	-3.46952	2.29789	26.82472	0.00000
2.360	18.350	-3.14837	-0.17621	-4.78021	2.37864	26.82472	0.00000
2.360	20.412	-2.64978	-0.18376	-0.18390	2.36339	26.82472	0.00000
2.360	22.436	-3.09694	-0.20068	-0.04189	2.42361	26.82472	0.00000
2.360	24.488	-3.62263	-0.25117	1.22511	2.48334	26.82472	0.00000
2.360	26.234	-2.48582	-0.23880	0.06612	2.57351	26.82472	0.00000
2.360	28.846	-3.62426	-0.30196	2.59552	2.59417	26.82472	0.00000
2.360	27.237	-15.48497	-0.17908	17.77737	2.32597	26.82472	0.00000
2.360	28.493	-13.68055	-0.20032	23.80225	2.31025	26.82472	0.00000
2.360	29.369	-7.60547	-0.20277	7.14348	2.41229	26.82472	0.00000
2.360	30.409	-0.44823	-0.33175	2.80026	2.59650	26.82472	0.00000
2.360		-0.21277	0.00032	0.37060	0.01009	0.00000	0.00000

GRADIENT

## LA-14, ROCKWELL ORB 0898 W/MCD. NOSE (BMMF)

(RPGP08)

MACH	PARAMETRIC DATA									
	BETA =	ELEVTR =	CG-LOC =	BOFLAP =	BETA	Q (KPA)	QVA	QNG	CLWA	CLW3
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	1.72016	-1.36141	-0.08864	-2.05230
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	1.71028	-1.77264	-0.10982	-2.09408
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	1.77999	-1.22921	-0.13023	-1.15808
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	1.98578	-17.49510	-0.08998	-5.06319
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	1.97958	0.14773	-0.12368	-1.78494
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	1.93038	-1.08315	-0.12018	-1.97386
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.02612	-1.20123	-0.15127	-1.62507
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.09010	-1.70157	-0.14884	-2.18208
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.16670	-0.28973	-0.16031	-2.05228
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.23391	-0.38258	-0.18549	-1.96044
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.31582	-0.17318	-0.18166	-2.86788
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.40077	-4.00817	-0.18355	-2.25189
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.41079	0.36171	-0.19158	-2.92149
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.47212	1.27046	-0.22369	-3.25354
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.48662	5.59340	-0.26973	-0.89803
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.25759	17.73326	-0.13432	-13.41614
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.41055	2.76660	-0.22908	-4.78873
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.46401	1.50462	-0.22048	-4.32140
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	2.68690	3.64413	-0.33185	-0.72940
2.860	0.000	0.000	40.000	0.000	0.0000	23.67863	0.04452	-2.44784	-0.00081	-0.41739

RUN NO. 902/ 0

GRADIENT INTERVAL = -5.00/ 5.00

GRADIENT

LA-14, ROCKWELL ORB 0898 W/MOD. NOSE (BAMF)

(RPGP03)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRLON = 0.000 CG-LCC = 1.000  
 RUFLR = 40.000 EDPLAP = 0.000

GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM2	CLM4	ON2	QVA	Q (KPA)	BETA
3.960	-0.987	-1.75578	-0.00311	-1.95571	1.31612	17.62189	0.00000
3.960	0.757	-1.64346	-0.01904	-2.54582	1.35903	17.62189	0.00000
3.960	2.846	-1.55767	-0.03020	-2.89890	1.44207	17.62189	0.00000
3.960	4.737	-1.50760	-0.02175	-3.21490	1.48278	17.62189	0.00000
3.960	5.775	-1.70090	-0.03601	-4.48482	1.55302	17.62189	0.00000
3.960	6.737	-7.38850	-0.00426	-26.28782	1.73508	17.62189	0.00000
3.960	8.814	0.81326	-0.09261	-5.31795	1.75529	17.62189	0.00000
3.960	10.776	1.52451	-0.11359	-6.34218	1.87281	17.62189	0.00000
3.960	12.852	-1.47695	-0.10192	-1.52639	1.93218	17.62189	0.00000
3.960	13.671	-1.44851	-0.10413	-0.83822	1.97451	17.62189	0.00000
3.960	14.705	3.84089	-0.11308	-3.39039	2.02096	17.62189	0.00000
3.960	16.740	1.36360	-0.12456	-1.61727	2.08293	17.62189	0.00000
3.960	18.676	0.40010	-0.12748	-2.96021	2.20495	17.62189	0.00000
3.960	19.722	-1.84264	-0.12482	-0.40741	2.24920	17.62189	0.00000
3.960	20.623	-2.04210	-0.12392	-0.86345	2.29277	17.62189	0.00000
3.960	21.659	5.39856	-0.14466	-6.06043	2.36307	17.62189	0.00000
3.960	22.803	3.46855	-0.14816	-4.35624	2.39991	17.62189	0.00000
3.960	23.693	-0.89947	-0.13346	-1.79036	2.40665	17.62189	0.00000
3.960	24.579	-3.05403	-0.12421	-0.04096	2.40766	17.62189	0.00000
3.960	26.640	-2.69089	-0.15408	-1.90825	2.51108	17.62189	0.00000
3.960	28.689	-3.42430	-0.16163	1.66451	2.58221	17.62189	0.00000
3.960	30.709	-2.20820	-0.23030	0.18189	2.68321	17.62189	0.00000
GRADIENT		0.04295	-0.03945	-0.21284	0.03041	0.00000	0.00000

LA-14, ROCKWELL CRB 0698 W/MCD, NCSE (BMMF)

(RPGP05)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALURON = 0.000 CG-LCC = 1.000  
 RUOFUR = 40.000 BOFLAP = 0.000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 904/ 0

MAO1	ALPHA	CLM2	CLM4	CLM6	CLM8	CLM10	BETA
4.630	-0.516	-1.81368	-0.00107	-1.16419	1.20037	13.92910	0.00000
4.630	1.159	-1.80596	0.00364	1.99763	1.20843	13.92910	0.00000
4.630	3.282	-1.62059	-0.00132	-2.21032	1.32681	13.92910	0.00000
4.630	5.100	-1.52294	0.00336	-2.65523	1.37242	13.92910	0.00000
4.630	7.521	2.00920	-0.04910	-9.39436	1.53741	13.92910	0.00000
4.630	8.280	-7.57470	-0.02536	-25.47961	1.75370	13.92910	0.00000
4.630	9.171	-7.61487	-0.02265	-32.62726	1.87909	13.92910	0.00000
4.630	10.100	-3.92131	-0.02696	-24.51025	1.97439	13.92910	0.00000
4.630	11.212	-1.18705	-0.06329	-0.52805	1.75429	13.92910	0.00000
4.630	12.198	-1.44445	-0.07315	-0.32557	1.80635	13.92910	0.00000
4.630	13.328	14.66214	-0.10337	-6.31591	1.88874	13.92910	0.00000
4.630	14.160	-0.83788	-0.07027	-0.11916	1.87813	13.92910	0.00000
4.630	15.203	-1.43823	-0.07060	1.41948	1.93490	13.92910	0.00000
4.630	17.131	-1.05984	-0.06610	0.20957	2.04356	13.92910	0.00000
4.630	19.219	-0.22295	-0.05887	-0.45809	2.16328	13.92910	0.00000
4.630	21.219	-0.47850	-0.11942	-0.47989	2.27002	13.92910	0.00000
4.630	23.126	-2.51510	-0.10671	2.16680	2.30392	13.92910	0.00000
4.630	25.136	-2.10080	-0.13833	0.82924	2.36615	13.92910	0.00000
4.630	27.177	-3.29871	-0.15875	3.66682	2.41153	13.92910	0.00000
4.630	29.184	-2.75599	-0.19527	1.07214	2.53661	13.92910	0.00000
4.630	31.268	-3.36039	-0.22777	-1.46171	2.66034	13.92910	0.00000
GRADIENT		0.05244	-0.00017	-0.35011	0.03422	0.00000	0.00000



## LA-14, ROOSEVELT CRB 0888 WACD, NOISE (BMMF)

(RPGPOS)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALURON = 0.000 CG-LOC = 2.000  
 RUFLR = 40.000 BDFLAP = 0.000

RUN NO. 606/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM3	CLM4	ON3	ON4	BETA
1.600	-1.098	-4.32934	-0.32337	-6.13284	2.69726	23.01698
1.600	0.566	-2.93919	-0.32166	-2.08064	2.79095	23.01698
1.600	2.385	-3.45100	-0.30725	-1.24904	2.78268	23.01698
1.600	4.598	-2.81796	-0.28717	-2.44129	2.77068	23.01698
1.600	6.814	-2.92969	-0.25702	3.00395	2.65560	23.01698
1.600	8.617	-1.89130	-0.27727	1.21483	2.75474	23.01698
1.600	10.626	-2.05421	-0.25037	2.23253	2.66963	23.01698
1.600	12.537	-1.92664	-0.16662	0.30990	2.61088	23.01698
GRADIENT	0.20908	0.00662	0.00662	0.58769	-0.01980	0.00000

RUN NO. 607/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM3	CLM4	ON3	ON4	BETA
1.900	-0.690	-3.69638	-0.21117	-6.02125	2.42541	22.93458
1.900	1.023	-3.06345	-0.22563	-2.74287	2.39138	22.93458
1.900	3.191	-2.33378	-0.24122	-0.12700	2.42421	22.93458
1.900	5.272	-2.27396	-0.22662	-1.36737	2.39098	22.93458
1.900	7.064	-2.49815	-0.19786	-2.58753	2.31079	22.93458
1.900	8.954	-2.80672	-0.15960	0.58469	2.27150	22.93458
1.900	11.062	-2.25398	-0.07034	-2.05696	2.26216	22.93458
1.900	13.218	-1.18922	-0.08237	-0.28763	2.3327	22.93458
1.900	14.974	-2.20909	-0.09543	0.41474	2.38414	22.93458
1.900	17.549	-2.48666	-0.07730	0.96009	2.46402	22.93458
1.900	19.214	-1.41930	-0.08516	0.60254	2.52317	22.93458
1.900	20.936	-1.89457	-0.10157	-0.64633	2.50487	22.93458
GRADIENT	0.35140	-0.00774	1.50856	0.00038	0.00000	0.00000

RUN NO. 918/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM3	CLM4	ON3	ON4	BETA
2.360	0.430	-2.95498	-0.09299	-4.59563	2.08442	26.82472
2.360	4.739	-2.19154	-0.08799	-2.13324	2.03285	26.82472
2.360	8.527	-2.46973	-0.02684	-1.78889	2.12940	26.82472
2.360	12.367	-3.33982	-0.02367	0.12780	2.23728	26.82472
2.360	16.592	-1.81374	-0.06241	-2.24723	2.38984	26.82472
2.360	18.509	-2.39430	-0.04948	-2.53237	2.46416	26.82472
2.360	20.509	-2.61511	-0.05807	-2.20146	2.48558	26.82472
2.360	22.583	-3.18278	-0.07383	-0.38640	2.54516	26.82472
2.360	24.546	-2.35823	-0.12040	-5.16462	2.65721	26.82472
2.360	26.650	-6.43269	-0.15521	-1.41762	2.76996	26.82472
2.360	28.240	-16.16894	-0.04842	-0.04842	2.49607	26.82472
2.360	29.920	-4.31122	-0.11792	-3.89653	2.68544	26.82472
GRADIENT	0.17717	0.00116	0.57146	-0.00036	0.00000	0.00000

LA-14, ROCKWELL ORB 0898 W/MOD. NOSE (BMMF)

(RPGP08)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRLON = 0.000 CG-LCC = 2.000  
 RUFLR = 40.000 BDFLAP = 0.000

RUN NO. 918/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM2	CLM4	QNA2	QNA	Q(KPA)	BETA
2.860	0.543	-1.24214	-0.01501	-0.56842	1.74326	23.67863	0.00000
2.860	4.611	-5.22207	0.01650	-17.12690	2.02359	23.67863	0.00000
2.860	8.614	-1.83082	-0.01412	-1.95376	1.96267	23.67863	0.00000
2.860	12.744	-1.98162	-0.03669	-0.32203	2.12749	23.67863	0.00000
2.860	16.474	-2.42373	-0.05532	-0.71173	2.26854	23.67863	0.00000
2.860	18.622	-2.07084	-0.04642	-0.83992	2.37235	23.67863	0.00000
2.860	20.516	-2.48674	-0.05044	-4.74366	2.45160	23.67863	0.00000
2.860	22.476	-2.45439	-0.06148	-2.13794	2.48989	23.67863	0.00000
2.860	24.459	-2.34183	-0.08996	-2.17929	2.56963	23.67863	0.00000
2.860	26.496	-9.24842	-0.02156	13.13283	2.41406	23.67863	0.00000
2.860	28.435	-3.81155	-0.08764	-3.63985	2.60957	23.67863	0.00000
2.860	30.239	-1.93497	-0.16305	-5.99443	2.78121	23.67863	0.00000
GRADIENT		-0.97835	0.01775	-4.07040	0.06891	0.00000	0.00000

RUN NO. 920/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM2	CLM4	QNA2	QNA	Q(KPA)	BETA
3.960	0.648	-1.50245	0.06004	-5.66797	1.37353	17.62188	0.00000
3.960	4.985	-1.51335	0.06456	-5.96928	1.51104	17.62188	0.00000
3.960	8.800	0.70120	0.01015	-7.03409	1.76988	17.62188	0.00000
3.960	12.825	-1.43202	0.00099	-1.15253	1.96975	17.62188	0.00000
3.960	16.786	3.24032	-0.05737	-2.30299	2.17034	17.62188	0.00000
3.960	18.723	5.23532	-0.02517	-6.88179	2.27745	17.62188	0.00000
3.960	20.756	-1.76493	-0.00347	-0.75620	2.35631	17.62188	0.00000
3.960	22.836	-2.01266	0.00391	-1.06950	2.41938	17.62188	0.00000
3.960	24.887	-2.62679	0.00692	-1.27934	2.47176	17.62188	0.00000
3.960	26.781	-1.89027	-0.01998	-1.18827	2.55856	17.62188	0.00000
3.960	28.716	-2.95580	-0.02255	-0.81262	2.64210	17.62188	0.00000
3.960	30.448	-2.13801	-0.06941	-1.96787	2.72648	17.62188	0.00000
GRADIENT		-0.00251	-0.00080	-0.06947	0.03171	-0.00000	0.00000



LA-14, ROCKWELL CRB 0898 W/MCD, NOSE (BAMF)

(RPG06)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRLN = 0.000 CG-LOC = 2.000  
 RUOFLR = 40.000 BDFLAP = 0.000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 921/ 0

MAOH	ALPHA	CLM3	CLM4	ON3	OMA	Q (KPA)	BETA
4.630	1.139	-1.43565	0.07030	-4.79539	1.25347	13.92910	0.00000
4.630	4.993	-1.40485	0.08339	-4.64890	1.38738	13.92910	0.00000
4.630	6.031	-1.22460	0.07427	-4.54053	1.42290	13.92910	0.00000
4.630	8.120	-5.24733	0.07771	-24.06343	1.78979	13.92910	0.00000
4.630	9.489	-10.73606	0.06924	-42.10117	1.91973	13.92910	0.00000
4.630	10.868	-1.73060	0.04222	-3.45924	1.80358	13.92910	0.00000
4.630	12.006	-1.41631	0.02797	-3.00837	1.84603	13.92910	0.00000
4.630	13.440	12.93412	-0.00003	-7.69998	1.92382	13.92910	0.00000
4.630	14.187	0.59222	0.02794	-1.89909	1.93086	13.92910	0.00000
4.630	15.454	-1.62259	0.03420	-0.66711	1.99067	13.92910	0.00000
4.630	17.461	-0.56084	0.01861	-1.82027	2.12972	13.92910	0.00000
4.630	19.444	-1.16510	0.02460	0.24990	2.20819	13.92910	0.00000
4.630	20.980	-0.92659	0.00702	-0.01609	2.30182	13.92910	0.00000
4.630	23.106	-1.13178	-0.00351	0.13121	2.37996	13.92910	0.00000
4.630	25.256	-1.87186	-0.00407	-0.02954	2.42378	13.92910	0.00000
4.630	27.191	-2.58327	-0.01935	1.61635	2.46545	13.92910	0.00000
4.630	29.194	-2.69933	-0.03291	-0.23157	2.60391	13.92910	0.00000
4.630	30.844	-3.22272	-0.07941	-5.00046	2.71429	13.92910	0.00000
GRADIENT		0.00814	0.00340	0.03901	0.03475	-0.00000	0.00000

## LA-14, ROCKWELL CRB 0698 W/ACD, NOSE (BMMF)

(RPGP07)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 5.000  
 AIRCON = 0.000 CG-LCC = 2.000  
 RUOFLR = 40.000 BDFLAP = 13.000

RUN NO. 608/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM3	CLM4	CM3	CM4	Q (KPA)	BETA
1.900	-0.666	-3.16124	-0.22132	-7.80117	2.37310	22.93458	0.00000
1.900	0.893	-2.52615	-0.22257	-5.75167	2.37731	22.93458	0.00000
1.900	3.078	-2.29490	-0.24590	-5.84194	2.39089	22.93458	0.00000
1.900	4.977	-2.27578	-0.24659	-2.88108	2.34995	22.93458	0.00000
1.900	7.051	-2.11193	-0.20629	-3.44169	2.28231	22.93458	0.00000
1.900	9.260	-2.98203	-0.14258	-4.21957	2.26363	22.93458	0.00000
1.900	11.354	-3.11205	-0.11348	-4.08599	2.27453	22.93458	0.00000
1.900	12.901	-2.56343	-0.09066	-1.68605	2.35692	22.93458	0.00000
1.900	15.027	-3.18653	-0.11356	-3.74726	2.43784	22.93458	0.00000
1.900	17.179	-3.03950	-0.12196	-3.79857	2.50002	22.93458	0.00000
1.900	19.950	-2.74073	-0.17257	-2.49850	2.52542	22.93458	0.00000
1.900	20.890	-4.58971	-0.19274	-1.79705	2.61396	22.93458	0.00000
GRADIENT	0.14716		-0.00528	0.75587	-0.00296	0.00000	0.00000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 914/ 0

MACH	ALPHA	CLM3	CLM4	CM3	CM4	Q (KPA)	BETA
2.360	-1.198	-1.34082	-0.11132	-3.62048	2.12979	26.82472	0.00000
2.360	0.507	-1.81286	-0.12831	-2.91931	2.11015	26.82472	0.00000
2.360	2.370	-5.23537	-0.10721	-16.65950	2.30612	26.82472	0.00000
2.360	4.685	-2.41828	-0.11733	-2.01786	2.10366	26.82472	0.00000
2.360	6.597	-2.34151	-0.09357	-3.70891	2.09940	26.82472	0.00000
2.360	8.520	-2.59824	-0.08783	-3.53327	2.16615	26.82472	0.00000
2.360	10.873	-2.90088	-0.07847	-5.58932	2.24791	26.82472	0.00000
2.360	12.591	-3.25323	-0.06990	-1.13074	2.29768	26.82472	0.00000
2.360	14.559	-2.29706	-0.10460	-1.63328	2.35488	26.82472	0.00000
2.360	16.698	-2.70613	-0.12152	-6.56434	2.44452	26.82472	0.00000
2.360	18.522	-2.62114	-0.11727	-3.44855	2.52674	26.82472	0.00000
2.360	20.555	-2.18538	-0.12580	-1.35514	2.55294	26.82472	0.00000
2.360	22.396	-3.34657	-0.14475	-3.22359	2.64981	26.82472	0.00000
2.360	24.520	-2.86685	-0.17396	-2.66103	2.75961	26.82472	0.00000
2.360	26.616	-2.51706	-0.20042	-0.91851	2.78637	26.82472	0.00000
2.360	28.543	-25.77916	-0.09084	44.44446	2.58222	26.82472	0.00000
2.360	30.071	-5.87492	-0.17648	4.67684	2.77670	26.82472	0.00000
GRADIENT	-0.30604		0.00016	-0.31959	0.00407	0.00000	0.00000

LA-14, ROCKWELL ORB 0688 W/MCD. NOSE (BMMF)

(RPGPDT)

PARAMETRIC DATA  
 BETA = 5.000  
 ELEVTR = 2.000  
 CG-LOC = 13.000  
 RUFLR = 40.000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 915/ 0

MACH	ALPHA	CLM3	CLM4	CLM5	CLM6	CLM7	CLM8	CLM9	CLM10	BETA
2.860	-1.118	-2.03991	-0.02158	-0.57083	1.74207	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	0.434	-2.03559	-0.04321	-2.74522	1.75536	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	2.558	-2.44008	-0.05916	-5.20624	1.85541	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	4.651	-3.24821	-0.04525	-9.84174	1.96497	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	6.724	-1.63353	-0.07005	-2.18494	1.94896	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	8.653	-1.14183	-0.06771	-2.15875	1.99580	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	10.688	-1.99259	-0.09128	-2.43446	2.09867	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	12.612	-2.29209	-0.10525	-2.59711	2.19545	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	14.685	-2.45119	-0.09901	-1.16755	2.23865	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	16.666	-2.48651	-0.12028	-2.30576	2.42872	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	18.463	-1.70569	-0.13222	-2.28431	2.52039	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	20.801	-2.57413	-0.13913	-2.28431	2.52039	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	22.390	-2.53234	-0.15439	-2.05331	2.58220	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	24.593	-2.07861	-0.20755	-2.17660	2.65930	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	26.568	-19.96841	-0.05113	24.99025	2.46723	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	28.612	-3.67047	-0.16551	-1.90558	2.70658	23.67863	0.00000	0.00000	0.00000	0.00000
2.860	30.207	-2.67735	-0.23897	-5.30611	2.93706	23.67863	0.00000	0.00000	0.00000	0.00000
GRADIENT	-0.21217	-0.00424	-1.56506	0.04028	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 916/ 0

MACH	ALPHA	CLM3	CLM4	CLM5	CLM6	CLM7	CLM8	CLM9	CLM10	BETA
3.960	-0.898	-1.90319	0.03305	-3.38744	1.32377	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	0.484	-1.75439	0.02571	-2.77624	1.34698	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	0.702	-1.65878	0.02640	-3.84209	1.36315	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	2.616	-1.53900	0.00522	-2.34202	1.45241	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	4.941	-1.64770	-0.01000	-4.18774	1.53663	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	6.911	-9.23684	0.03282	-31.91139	1.85872	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	8.951	-0.97062	-0.04416	-1.63943	1.78314	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	11.107	2.86764	-0.07015	-10.93661	1.92641	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	12.984	-0.63835	-0.07824	-2.59764	2.02939	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	14.707	-1.03715	-0.07939	-1.28851	2.09482	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	16.786	2.67297	-0.14255	-2.52264	2.22551	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	18.861	-1.80197	-0.09574	-0.85238	2.31195	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	20.742	-3.77674	-0.07481	0.00318	2.42442	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	22.723	-3.30128	-0.09796	0.61034	2.46710	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	24.713	-2.80281	-0.10030	-1.06373	2.54665	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	26.835	-3.06326	-0.10201	1.18970	2.61000	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	28.812	-3.20655	-0.13512	1.00702	2.72117	17.62188	0.00000	0.00000	0.00000	0.00000
3.960	30.448	-2.42114	-0.15918	0.52212	2.79451	17.62188	0.00000	0.00000	0.00000	0.00000
GRADIENT	0.04274	-0.00636	-0.09145	0.03848	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

LA-14, ROCKWELL ORB 0888 W/ACD, NOSE (BAMF)

(RPGP07)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 5.000  
 AILRON = 0.000 CG-LCC = 2.000  
 RUFLR = 40.000 BOFLAP = 13.000

RUN NO. 917/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CLM3	CLM4	ON3	ON4	Q (KPA)	BETA
4.630	-0.384	-1.97181	0.03565	-3.49977	1.16404	13.92910	0.00000
4.630	1.187	-1.60943	0.03591	-3.10366	1.18439	13.92910	0.00000
4.630	3.309	-1.57125	0.03053	-2.55046	1.30207	13.92910	0.00000
4.630	5.435	-1.46606	0.02641	-4.62330	1.39304	13.92910	0.00000
4.630	7.427	-1.29909	-0.00312	-15.21762	1.61336	13.92910	0.00000
4.630	9.396	-7.13354	0.00369	-37.20746	1.94713	13.92910	0.00000
4.630	11.305	-1.80811	-0.04525	-6.08870	1.81118	13.92910	0.00000
4.630	13.236	13.33408	-0.07279	-6.80348	1.92584	13.92910	0.00000
4.630	15.309	-0.91409	-0.03962	-1.30592	2.00075	13.92910	0.00000
4.630	16.933	-1.33952	-0.06352	-0.79690	2.10220	13.92910	0.00000
4.630	19.153	-2.01474	-0.07824	-1.21668	2.23480	13.92910	0.00000
4.630	21.120	-1.19737	-0.09601	-1.22743	2.34472	13.92910	0.00000
4.630	23.160	-2.54160	-0.11005	1.15400	2.41018	13.92910	0.00000
4.630	25.136	-3.40990	-0.10172	1.18005	2.46414	13.92910	0.00000
4.630	27.177	-3.40643	-0.12482	2.15625	2.51937	13.92910	0.00000
4.630	29.248	-3.69165	-0.15653	1.59812	2.65587	13.92910	0.00000
4.630	30.944	-4.18545	-0.17073	-1.11174	2.75482	13.92910	0.00000
	GRADIENT	0.10428	-0.00148	0.26126	0.03913	0.00000	0.00000



LA-14, ROUNELL ORB 0888 WMOO, NOSE (BAW )

(RPGY01)

## PARAMETRIC DATA

BETA = 0.000 ELEVTR = 0.000  
 ATURON = 0.000 CG-LOC = 1.000  
 RUDFLR = 40.000

RUN NO. 613/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CYMR	CYNBC	CSLR	CSLBC	BETA
1.900	-1.178	-0.60423	0.12961	0.09442	-0.11561	0.00000
1.900	0.512	-0.60636	0.11736	0.02974	-0.11052	0.00000
1.900	2.671	-0.49500	0.10097	-0.00210	-0.10881	0.00000
1.900	4.560	-0.72522	0.06576	0.10421	-0.10627	0.00000
1.900	6.561	-0.69047	0.06735	0.18237	-0.10303	0.00000
1.900	8.511	-0.77641	0.05180	0.07897	-0.10920	0.00000
1.900	10.679	-0.73046	0.04048	0.12950	-0.11590	0.00000
1.900	12.464	-0.69588	0.03719	0.32334	-0.12597	0.00000
1.900	14.577	-0.75725	0.02383	0.24706	-0.12964	0.00000
1.900	16.689	-0.72600	0.00659	0.39874	-0.13145	0.00000
1.900	18.592	-0.89044	-0.02596	0.40775	-0.12700	0.00000
1.900	20.327	-0.92824	-0.07256	0.09426	-0.13589	0.00000
GRADIENT		-0.01121	-0.00739	0.00100	0.00150	0.00000

RUN NO. 934/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CYMR	CYNBC	CSLR	CSLBC	BETA
2.360	0.271	-0.46223	0.09719	0.09961	-0.07968	0.00000
2.360	4.296	-0.69028	0.07967	0.14948	-0.08647	0.00000
2.360	8.633	-0.63720	0.05101	0.16133	-0.09840	0.00000
2.360	12.552	-0.60785	0.04783	0.12219	-0.12481	0.00000
2.360	16.447	-0.70161	0.01619	0.42955	-0.14169	0.00000
2.360	18.262	-0.78043	-0.02164	0.33904	-0.13850	0.00000
2.360	20.310	-1.08903	-0.07749	0.14424	-0.12577	0.00000
2.360	22.356	-1.27065	-0.14795	0.19201	-0.13007	0.00000
2.360	24.433	-2.67501	-0.18118	-1.17085	-0.10544	0.00000
2.360	26.356	-1.22374	-0.18499	0.53354	-0.08338	0.00000
2.360	28.294	-1.47292	-0.12940	0.28847	-0.12922	0.00000
2.360	30.107	-1.91150	-0.16649	0.30300	-0.11374	0.00000
GRADIENT		-0.05417	-0.00435	0.01239	-0.00169	0.00000

LA-14, ROCKWELL ORB D868 W/MCD, NOSE (BNW )

(RPGY08)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALURON = 0.000 CG-LOC = 1.000  
 RUFLR = 40.000

RUN NO. 935/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYMR	CYNBC	CBUR	CBURC	Q (KPA)	BETA
2.860	0.407	-0.36322	0.08252	0.05911	-0.06996	23.67863	0.00000
2.860	4.215	-0.56399	0.06481	0.08090	-0.07872	23.67863	0.00000
2.860	6.255	-0.63704	0.04258	0.15966	-0.09230	23.67863	0.00000
2.860	12.691	-0.54441	0.04907	0.25713	-0.12628	23.67863	0.00000
2.860	16.335	-0.63475	0.01911	0.20901	-0.14143	23.67863	0.00000
2.860	18.496	-0.74446	-0.03194	0.32599	-0.13391	23.67863	0.00000
2.860	20.675	-0.95071	-0.08397	0.34249	-0.11773	23.67863	0.00000
2.860	22.336	-0.75638	-0.09613	0.39576	-0.11626	23.67863	0.00000
2.860	24.519	-2.02060	-0.14004	-0.40012	-0.10776	23.67863	0.00000
2.860	26.541	-0.95216	-0.16265	0.66089	-0.07267	23.67863	0.00000
2.860	28.788	-3.57863	-0.15675	2.47519	-0.10225	23.67863	0.00000
GRADIENT		-0.04747	-0.00465	0.00572	-0.00233	0.00000	0.00000

RUN NO. 936/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYMR	CYNBC	CBUR	CBURC	Q (KPA)	BETA
3.960	0.443	-0.29648	0.05190	-0.01663	-0.05998	17.62188	0.00000
3.960	4.710	-0.31936	0.04492	0.03379	-0.07063	17.62188	0.00000
3.960	6.754	-0.59785	0.03459	0.04435	-0.08777	17.62188	0.00000
3.960	12.706	-0.52238	0.03615	0.09259	-0.11207	17.62188	0.00000
3.960	16.694	-0.46373	-0.01609	0.25839	-0.10837	17.62188	0.00000
3.960	18.782	-0.64468	-0.05630	0.26916	-0.09602	17.62188	0.00000
3.960	20.517	-0.67425	-0.07374	0.21124	-0.09181	17.62188	0.00000
3.960	22.523	-0.72238	-0.09835	0.20444	-0.09059	17.62188	0.00000
3.960	24.585	-0.93590	-0.11775	0.18267	-0.08976	17.62188	0.00000
3.960	26.701	-0.66369	-0.12337	0.53516	-0.07469	17.62188	0.00000
3.960	28.900	-0.70446	-0.09434	0.69442	-0.09244	17.62188	0.00000
3.960	30.352	-0.67700	-0.08989	0.34384	-0.09598	17.62188	0.00000
GRADIENT		-0.00536	-0.00164	0.01182	-0.00250	0.00000	0.00000



LA-14, RCONWELL ORB 0698 W/MOD. NOSE (BW M)

(RPGY02)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALURON = 0.000 CG-LOC = 1.000

RUN NO. 612/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYMR	CYNBC	CBUR	CBURC	Q (KPA)	BETA
1.900	-0.666	-0.28400	-0.14629	0.09629	0.06641	22.93458	0.00000
1.900	0.962	-0.06799	-0.15132	-0.26507	0.06302	22.93458	0.00000
1.900	3.078	-0.31362	-0.14189	0.14871	0.05452	22.93458	0.00000
1.900	4.869	-0.64505	-0.14038	-0.09009	0.05106	22.93458	0.00000
1.900	7.011	-0.67689	-0.14428	0.24601	0.04416	22.93458	0.00000
1.900	9.034	-0.74397	-0.14353	0.05530	0.02931	22.93458	0.00000
1.900	10.979	-0.90439	-0.14448	0.28549	0.01289	22.93458	0.00000
1.900	12.755	-0.73941	-0.14098	0.32028	0.00479	22.93458	0.00000
1.900	14.684	-0.64539	-0.13267	0.30581	-0.00979	22.93458	0.00000
1.900	17.333	-0.55064	-0.12641	0.19368	-0.03267	22.93458	0.00000
1.900	18.937	-0.72442	-0.12390	0.31769	-0.04321	22.93458	0.00000
1.900	20.790	-0.53319	-0.12555	0.57681	-0.05267	22.93458	0.00000
GRADIENT		-0.07296	0.00182	-0.00416	-0.00293	0.00000	0.00000

RUN NO. 932/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYMR	CYNBC	CBUR	CBURC	Q (KPA)	BETA
2.360	0.266	-0.38993	-0.14120	0.17368	0.06292	26.82472	0.00000
2.360	4.202	-0.60966	-0.13624	0.26585	0.04337	26.82472	0.00000
2.360	8.173	-0.84298	-0.13836	0.09026	0.01884	26.82472	0.00000
2.360	12.257	-0.78844	-0.12339	0.06474	-0.01390	26.82472	0.00000
2.360	16.293	-0.64082	-0.11282	0.24328	-0.04504	26.82472	0.00000
2.360	18.116	-0.70727	-0.10943	0.24729	-0.05604	26.82472	0.00000
2.360	20.204	-0.75844	-0.10987	0.21939	-0.06465	26.82472	0.00000
2.360	22.163	-0.75083	-0.11176	0.34958	-0.07533	26.82472	0.00000
2.360	24.239	-0.67235	-0.11123	0.15423	-0.09364	26.82472	0.00000
2.360	26.324	-1.03055	-0.10116	0.06891	-0.10991	26.82472	0.00000
2.360	28.213	-1.30038	-0.10674	-0.35628	-0.12333	26.82472	0.00000
2.360	30.094	-1.63740	-0.12502	-0.15148	-0.13308	26.82472	0.00000
GRADIENT		-0.06585	0.00126	0.02342	-0.00497	0.00000	0.00000





LA-14, ROOSEVELT CRB 0698 WAKED, NOSE (BW M)

(RPGY02)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALLCON = 0.000 CG-LCC = 1.000

RUN NO. 933/ 0 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CYMR	CYNBC	CBUR	GBLBC	Q (KPA)	BETA
MACH							
2.860	0.343	-0.37130	-0.12176	0.01562	0.05024	23.67863	0.00000
2.860	4.468	-0.44652	-0.11833	0.07185	0.02698	23.67863	0.00000
2.860	8.463	-0.72623	-0.12214	0.06780	0.00643	23.67863	0.00000
2.860	12.457	-0.69186	-0.10921	0.10329	-0.02453	23.67863	0.00000
2.860	16.481	-0.59611	-0.10080	0.08923	-0.02516	23.67863	0.00000
2.860	18.375	-0.69435	-0.09939	-0.01113	-0.07171	23.67863	0.00000
2.860	20.357	-0.73582	-0.10129	0.09341	-0.07246	23.67863	0.00000
2.860	22.310	-0.77960	-0.10086	0.19674	-0.07701	23.67863	0.00000
2.860	24.459	-0.77581	-0.10098	0.16499	-0.08153	23.67863	0.00000
2.860	26.447	-1.01131	-0.11079	-0.54964	-0.10319	23.67863	0.00000
2.860	28.367	-0.83608	-0.10859	-0.04252	-0.10553	23.67863	0.00000
2.860	30.207	-1.24638	-0.12426	0.01953	-0.11672	23.67863	0.00000
GRADIENT		-0.01824	0.00083	0.01363	-0.00564	0.00000	0.00000

RUN NO. 930/ 0 GRADIENT INTERVAL = -5.00/ 5.00

	ALPHA	CYMR	CYNBC	CBUR	GBLBC	Q (KPA)	BETA
MACH							
3.960	0.553	-0.32320	-0.09280	0.03828	0.02286	17.62188	0.00000
3.960	4.663	-0.39789	-0.09383	0.05154	0.00840	17.62188	0.00000
3.960	8.694	-0.50221	-0.09977	0.09678	-0.00678	17.62188	0.00000
3.960	12.521	-0.57218	-0.09322	0.04039	-0.02906	17.62188	0.00000
3.960	16.806	-0.65729	-0.09428	0.12189	-0.04775	17.62188	0.00000
3.960	18.518	-0.67373	-0.09694	0.16314	-0.05441	17.62188	0.00000
3.960	20.676	-0.66150	-0.09463	0.18626	-0.05945	17.62188	0.00000
3.960	22.463	-0.69059	-0.09751	0.29849	-0.06262	17.62188	0.00000
3.960	24.793	-0.84622	-0.10049	0.31314	-0.07315	17.62188	0.00000
3.960	26.431	-0.83177	-0.10516	0.25730	-0.08078	17.62188	0.00000
3.960	28.540	-0.70847	-0.10642	0.19628	-0.08975	17.62188	0.00000
3.960	30.407	-0.85771	-0.11515	0.42406	-0.07670	17.62188	0.00000
GRADIENT		-0.01817	-0.00025	0.00323	-0.00352	0.00000	0.00000

(RPG102)

LA-14, ROCKWELL CRB 0898 W/MCD, NOSE (SW M)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ATLRON = 0.000 CG-LOC = 1.000

GRADIENT INTERVAL = -3.00/ 5.00

RUN NO. 931/ 0

MAON	ALPHA	CYR	CYBC	CBUR	CBURC	Q (KPA)	BETA
4.630	1.003	-0.33756	-0.06284	0.00017	0.01701	13.92910	0.00000
4.630	5.167	-0.36554	-0.09532	0.01301	-0.00277	13.92910	0.00000
4.630	9.051	-0.38503	-0.08992	0.06482	-0.01384	13.92910	0.00000
4.630	13.117	-0.65080	-0.09060	0.05685	-0.02654	13.92910	0.00000
4.630	17.501	-0.55244	-0.08757	0.13045	-0.04530	13.92910	0.00000
4.630	19.034	-0.56979	-0.08933	0.17282	-0.04618	13.92910	0.00000
4.630	21.033	-0.60672	-0.08283	0.23766	-0.05630	13.92910	0.00000
4.630	23.026	-0.59501	-0.09117	0.27057	-0.06328	13.92910	0.00000
4.630	24.928	-0.57322	-0.09146	0.25148	-0.07136	13.92910	0.00000
4.630	27.256	-0.43354	-0.09451	0.16127	-0.07876	13.92910	0.00000
4.630	29.105	-0.74296	-0.10275	0.37153	-0.06697	13.92910	0.00000
4.630	30.844	-0.68855	-0.10185	0.44749	-0.07065	13.92910	0.00000
	GRADIENT	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000



LA-14, ROCKWELL ORB D898 W/MCD, NOISE (BMMH)

(RPGY03)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALURON = 0.000 CG-LCC = 1.000  
 RUOFUR = 40.000

RUN NO. 611/ 0

GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CTNR	CYNBC	CBUR	CBURC	Q (NPA)	BETA
1.900	-0.666	-0.51532	0.07479	0.10360	-0.07234	22.93458	0.00000
1.900	0.890	-0.55235	0.07044	0.06906	-0.07582	22.93458	0.00000
1.900	2.916	-0.61069	0.05674	0.16330	-0.07309	22.93458	0.00000
1.900	5.017	-0.78067	0.04269	0.08647	-0.07180	22.93458	0.00000
1.900	7.033	-0.75671	0.02399	0.08104	-0.07096	22.93458	0.00000
1.900	8.954	-0.73475	0.01869	0.24726	-0.08064	22.93458	0.00000
1.900	11.043	-0.58133	0.01669	0.24262	-0.09655	22.93458	0.00000
1.900	13.112	-0.66815	0.01124	0.23065	-0.09913	22.93458	0.00000
1.900	15.264	-0.66626	-0.00741	0.32677	-0.10107	22.93458	0.00000
1.900	17.113	-0.75489	-0.03398	0.32941	-0.10270	22.93458	0.00000
1.900	19.333	-0.73875	-0.07894	0.63813	-0.09274	22.93458	0.00000
1.900	21.062	-0.97941	-0.11840	0.34113	-0.07917	22.93458	0.00000
GRADIENT		-0.02673	-0.00313	0.01819	-0.00013	-0.00000	0.00000

RUN NO. 926/ 0

GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CTNR	CYNBC	CBUR	CBURC	Q (NPA)	BETA
2.360	-1.253	-0.40938	0.06995	-0.08204	-0.06372	26.82472	0.00000
2.360	0.171	-0.46571	0.06210	0.20554	-0.06346	26.82472	0.00000
2.360	0.498	-0.52855	0.05918	0.32336	-0.06173	26.82472	0.00000
2.360	2.336	-0.63117	0.04625	0.14147	-0.06042	26.82472	0.00000
2.360	4.323	-0.64272	0.04296	0.02498	-0.05844	26.82472	0.00000
2.360	6.310	-0.69497	0.02724	0.28177	-0.07218	26.82472	0.00000
2.360	8.394	-0.77461	0.01999	0.05404	-0.06362	26.82472	0.00000
2.360	10.390	-0.72048	0.01846	-0.02320	-0.09352	26.82472	0.00000
2.360	12.347	-0.75979	0.01534	0.16622	-0.10450	26.82472	0.00000
2.360	14.374	-0.86259	-0.00443	0.17318	-0.10931	26.82472	0.00000
2.360	16.684	-0.95315	-0.04222	0.24528	-0.10795	26.82472	0.00000
2.360	18.284	-1.04482	-0.07365	0.27958	-0.10125	26.82472	0.00000
2.360	20.350	-1.04641	-0.11815	0.27346	-0.08612	26.82472	0.00000
2.360	22.316	-1.06535	-0.15340	0.50918	-0.07518	26.82472	0.00000
2.360	24.627	-1.74755	-0.16276	0.23403	-0.07289	26.82472	0.00000
2.360	26.396	-1.75757	-0.18035	-0.09804	-0.06766	26.82472	0.00000
2.360	28.661	-2.07975	-0.19667	-0.03694	-0.09524	26.82472	0.00000
2.360	30.048	-1.50357	-0.17617	-0.13029	-0.11873	26.82472	0.00000
GRADIENT		-0.04455	-0.00508	-0.00042	-0.00068	0.00000	0.00000

## LA-14, ROCKWELL CRB D888 W/MCD. NOISE (BMM)

(RPGY03)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ATURON = 0.000 CG-LOC = 1.000  
 RUDFLR = 40.000

RUN NO. 927/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CYMR	CYNBC	CBLR	CBLCB	Q (KPA)	BETA
2.860	-1.221	-0.47928	0.06660	0.01153	-0.07058	23.67863	0.00000
2.860	0.373	-0.45290	0.07549	0.04048	-0.07089	23.67863	0.00000
2.860	2.078	-0.54247	0.06207	0.08341	-0.07120	23.67863	0.00000
2.860	4.369	-0.57120	0.04816	0.04203	-0.07593	23.67863	0.00000
2.860	6.457	-0.63979	0.03746	0.04638	-0.08201	23.67863	0.00000
2.860	8.454	-0.75580	0.02512	0.08633	-0.08792	23.67863	0.00000
2.860	10.483	-0.67370	0.02581	0.03351	-0.10057	23.67863	0.00000
2.860	12.599	-0.69904	0.02773	0.24192	-0.11684	23.67863	0.00000
2.860	14.791	-0.75352	0.00342	0.08726	-0.12181	23.67863	0.00000
2.860	16.520	-0.83236	-0.01884	0.17468	-0.12458	23.67863	0.00000
2.860	18.384	-0.96427	-0.05164	0.00255	-0.12846	23.67863	0.00000
2.860	20.450	-1.06273	-0.08549	0.24823	-0.10896	23.67863	0.00000
2.860	22.443	-1.05629	-0.08812	0.35871	-0.09876	23.67863	0.00000
2.860	24.499	-0.97618	-0.12157	0.49894	-0.08736	23.67863	0.00000
2.860	26.366	-1.31530	-0.15879	0.25513	-0.08549	23.67863	0.00000
2.860	28.231	-2.36074	-0.18054	-0.26029	-0.10957	23.67863	0.00000
2.860	30.221	-0.59715	-0.10700	-0.49862	-0.12788	23.67863	0.00000
	GRADIENT	-0.01994	-0.00694	0.00637	-0.00093	0.00000	0.00000

RUN NO. 928/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CYMR	CYNBC	CBLR	CBLCB	Q (KPA)	BETA
3.960	-0.987	-0.40686	0.07234	0.03159	-0.06534	17.62188	0.00000
3.960	0.546	-0.32851	0.06943	0.00714	-0.07072	17.62188	0.00000
3.960	2.785	-0.40754	0.06277	0.02464	-0.07758	17.62188	0.00000
3.960	4.764	-0.43264	0.05411	0.03725	-0.08000	17.62188	0.00000
3.960	6.824	-0.51101	0.04924	0.02543	-0.08692	17.62188	0.00000
3.960	8.860	-0.43383	0.03316	-0.00388	-0.09107	17.62188	0.00000
3.960	10.736	-0.54310	0.04335	0.04520	-0.10434	17.62188	0.00000
3.960	12.607	-0.58691	0.03379	0.06901	-0.11133	17.62188	0.00000
3.960	14.766	-0.55174	0.01373	0.16120	-0.11261	17.62188	0.00000
3.960	16.628	-0.70188	-0.01373	0.17355	-0.11020	17.62188	0.00000
3.960	18.551	-0.75879	-0.04658	0.22044	-0.10155	17.62188	0.00000
3.960	20.557	-0.84367	-0.06260	0.24419	-0.09208	17.62188	0.00000
3.960	22.543	-0.89391	-0.08434	0.27524	-0.08991	17.62188	0.00000
3.960	24.800	-0.89328	-0.09959	0.31370	-0.09232	17.62188	0.00000
3.960	26.539	-1.11538	-0.12108	0.25635	-0.10130	17.62188	0.00000
3.960	28.603	-1.02303	-0.10853	0.38280	-0.09615	17.62188	0.00000
3.960	30.421	-1.17093	-0.10134	0.64099	-0.08518	17.62188	0.00000
	GRADIENT	-0.00912	-0.00317	-0.00080	-0.00259	0.00000	0.00000

LA-14, RCONWELL ORB 0998 WIND, NOISE (BLMM)

(RPG/03)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AILRON = 1.000 CG-LOC = 1.000  
 RUDFLR = 40.000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 929/ 0

MACH	ALPHA	CNR	CYBXC	CBUR	CBURC	Q (KPA)	BETA
4.630	-0.558	-0.36283	0.05243	0.02922	-0.05971	13.92910	0.00000
4.630	0.989	-0.31154	0.02549	-0.00959	-0.06657	13.92910	0.00000
4.630	3.107	-0.34165	0.05298	-0.03074	-0.07786	13.92910	0.00000
4.630	5.355	-0.33121	0.04106	0.01010	-0.07895	13.92910	0.00000
4.630	7.134	-0.36402	0.03358	0.03154	-0.08211	13.92910	0.00000
4.630	9.197	-0.53101	0.01993	0.07403	-0.07876	13.92910	0.00000
4.630	11.199	-0.39628	0.01709	0.19487	-0.08304	13.92910	0.00000
4.630	13.170	-0.45239	0.02250	0.04414	-0.08635	13.92910	0.00000
4.630	15.183	-0.47015	0.00858	0.13851	-0.09938	13.92910	0.00000
4.630	17.045	-0.62821	-0.02015	0.16532	-0.09375	13.92910	0.00000
4.630	19.007	-0.69494	-0.04260	0.20251	-0.08462	13.92910	0.00000
4.630	21.100	-0.77307	-0.06594	0.31029	-0.08078	13.92910	0.00000
4.630	23.080	-0.79311	-0.07951	0.23611	-0.07845	13.92910	0.00000
4.630	25.042	-0.73490	-0.09148	0.14604	-0.09225	13.92910	0.00000
4.630	27.177	-0.97932	-0.10272	0.37382	-0.07723	13.92910	0.00000
4.630	29.078	-0.92643	-0.07595	0.40384	-0.08101	13.92910	0.00000
4.630	30.844	-0.81911	-0.06019	0.44929	-0.08349	13.92910	0.00000
GRADIENT		0.00459	0.00004	-0.01598	-0.00497	0.00000	0.00000

## LA-14, ROCKWELL ORB 0698 W/MCD. NOSE (BMM)

(RPGY04)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRLON = 0.000 CG-LCC = 2.000  
 RUOFLR = 40.000

RUN NO. 610/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CYMR	CYNBC	CBLR	CBLCB	Q(NPA)	BETA
1.900	-0.461	-0.44219	0.04518	0.07694	-0.07284	22.93458	0.00000
1.900	1.465	-0.46341	0.03752	0.25511	-0.07121	22.93458	0.00000
1.900	3.605	-0.74242	0.02635	-0.03963	-0.07357	22.93458	0.00000
1.900	5.781	-0.90660	0.00722	0.08360	-0.07033	22.93458	0.00000
1.900	7.957	-0.77481	-0.00465	0.27336	-0.07501	22.93458	0.00000
1.900	9.664	-0.73169	-0.00909	0.17911	-0.08566	22.93458	0.00000
1.900	11.605	-0.68608	-0.00778	0.20692	-0.09671	22.93458	0.00000
1.900	13.645	-0.69964	-0.01766	0.28074	-0.09989	22.93458	0.00000
1.900	15.832	-0.66822	-0.03599	0.28936	-0.10410	22.93458	0.00000
1.900	17.502	-0.69403	-0.06283	0.48057	-0.10264	22.93458	0.00000
1.900	19.426	-0.94081	-0.10023	0.41277	-0.09262	22.93458	0.00000
1.900	21.290	-1.04839	-0.14090	0.56361	-0.07815	22.93458	0.00000
GRADIENT		-0.07488	-0.00464	-0.03116	-0.00020	0.00000	0.00000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 922/ 0

MAOH	ALPHA	CYMR	CYNBC	CBLR	CBLCB	Q(NPA)	BETA
2.360	-1.271	-0.42812	0.04194	0.15785	-0.06169	26.82472	0.00000
2.360	0.246	-0.52005	0.03451	0.24422	-0.06192	26.82472	0.00000
2.360	2.394	-0.49133	0.01923	0.24833	-0.05977	26.82472	0.00000
2.360	4.524	-0.68725	0.01851	0.15121	-0.06982	26.82472	0.00000
2.360	6.230	-0.75710	0.00434	0.07991	-0.07269	26.82472	0.00000
2.360	8.354	-0.70894	-0.00466	-0.02765	-0.06370	26.82472	0.00000
2.360	10.462	-0.53939	-0.00554	0.17114	-0.09392	26.82472	0.00000
2.360	12.393	-0.52238	-0.00938	0.33569	-0.10639	26.82472	0.00000
2.360	14.392	-0.50635	-0.02918	0.31568	-0.11070	26.82472	0.00000
2.360	16.420	-0.51799	-0.05920	0.70240	-0.10794	26.82472	0.00000
2.360	18.376	-0.67717	-0.09490	0.60912	-0.10244	26.82472	0.00000
2.360	20.283	-1.23620	-0.13328	0.79650	-0.08756	26.82472	0.00000
2.360	22.538	-1.58483	-0.17185	0.59545	-0.08066	26.82472	0.00000
2.360	24.533	-1.41644	-0.18116	0.62375	-0.07687	26.82472	0.00000
2.360	26.279	-1.79633	-0.18856	0.65730	-0.09466	26.82472	0.00000
2.360	28.308	-1.98952	-0.20842	0.17229	-0.09698	26.82472	0.00000
2.360	29.933	-1.67103	-0.18882	0.44977	-0.11395	26.82472	0.00000
GRADIENT		-0.03840	-0.00432	-0.02226	-0.00119	0.00000	0.00000

LA-14, ROONWELL ORB 0698 WIND, NOSE (BAM)

(RPGY04)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALLRON = 0.000 CG-LOC = 2.000  
 RUDFLR = 40.000

RUN NO. 923/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYNR	CYNBC	CELR	CELRBC	Q(KPA)	BETA
2.860	-1.221	-0.40151	0.09807	0.02946	-0.07082	23.67863	0.00000
2.860	0.250	-0.49586	0.04942	0.03996	-0.07141	23.67863	0.00000
2.860	2.605	-0.46384	0.03070	0.07794	-0.07103	23.67863	0.00000
2.860	4.450	-0.63407	0.02446	0.06989	-0.07326	23.67863	0.00000
2.860	6.551	-0.66245	0.01400	0.16452	-0.08139	23.67863	0.00000
2.860	8.521	-0.78149	0.00285	0.12516	-0.08694	23.67863	0.00000
2.860	10.430	-0.69189	0.00375	0.08453	-0.10107	23.67863	0.00000
2.860	12.467	-0.59215	0.00478	0.18785	-0.11494	23.67863	0.00000
2.860	14.395	-0.56086	-0.01522	0.30379	-0.12220	23.67863	0.00000
2.860	16.547	-0.56488	-0.04088	0.45357	-0.12532	23.67863	0.00000
2.860	18.609	-0.78083	-0.07622	0.32455	-0.12717	23.67863	0.00000
2.860	20.397	-0.83014	-0.10079	0.53687	-0.10869	23.67863	0.00000
2.860	22.330	-0.89471	-0.11254	0.77279	-0.10042	23.67863	0.00000
2.860	24.298	-0.80280	-0.13378	0.57116	-0.08551	23.67863	0.00000
2.860	26.393	-1.24579	-0.17415	0.69763	-0.08456	23.67863	0.00000
2.860	27.047	-1.95085	-0.17255	0.46408	-0.09784	23.67863	0.00000
2.860	28.442	-1.85438	-0.19084	0.75468	-0.10865	23.67863	0.00000
2.860	28.781	-2.77254	-0.18357	0.90719	-0.10800	23.67863	0.00000
2.860	29.578	0.78638	-0.14616	-0.39579	-0.12759	23.67863	0.00000
2.860	30.125	2.32984	-0.11957	-1.29941	-0.14506	23.67863	0.00000
GRADIENT		-0.03326	-0.00620	0.00841	-0.00063	0.00000	0.00000

RUN NO. 924/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CYNR	CYNBC	CELR	CELRBC	Q(KPA)	BETA
3.960	-0.939	-0.40380	0.04579	0.00640	-0.06580	17.62188	0.00000
3.960	0.375	-0.34680	0.04407	-0.02566	-0.07058	17.62188	0.00000
3.960	2.643	-0.43953	0.04053	0.02800	-0.07748	17.62188	0.00000
3.960	4.784	-0.41956	0.03228	0.01212	-0.07950	17.62188	0.00000
3.960	6.831	-0.47946	0.02914	0.06024	-0.08834	17.62188	0.00000
3.960	8.787	-0.55344	0.01507	0.06137	-0.09131	17.62188	0.00000
3.960	10.815	-0.55838	0.02192	0.06733	-0.10542	17.62188	0.00000
3.960	12.759	-0.61937	0.01085	0.09970	-0.11255	17.62188	0.00000
3.960	14.661	-0.64224	-0.00884	0.21170	-0.11409	17.62188	0.00000
3.960	16.654	-0.55144	-0.03396	0.32134	-0.11081	17.62188	0.00000
3.960	18.603	-0.45267	-0.06432	0.39783	-0.10383	17.62188	0.00000
3.960	20.623	-0.64114	-0.07838	0.43248	-0.09501	17.62188	0.00000
3.960	22.690	-0.64081	-0.10048	0.62387	-0.09060	17.62188	0.00000
3.960	24.719	-0.71279	-0.11197	0.68223	-0.09387	17.62188	0.00000
3.960	26.687	-1.02778	-0.13118	0.76735	-0.10312	17.62188	0.00000
3.960	28.716	-1.09690	-0.12293	0.71933	-0.10253	17.62188	0.00000
3.960	30.394	-1.09389	-0.12654	1.09814	-0.07381	17.62188	0.00000
GRADIENT		-0.00826	-0.00230	0.00421	-0.00243	0.00000	0.00000

LA-14, ROCKWELL ORB 0898 W/MOD. NOSE (BMAN)

(RPGY04)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ATURON = 0.000 CG-LOC = 2.000  
 RUDFUR = 40.000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 925/ 0

MACH	ALPHA	CYMR	CYNBC	CBUR	CBURC	BETA
4.630	-0.571	-0.35893	0.02818	0.01743	-0.06010	13.92910
4.630	0.825	-0.33777	0.03123	0.02690	-0.06627	13.92910
4.630	1.180	-0.36835	0.03173	0.00164	-0.06908	13.92910
4.630	3.201	-0.40865	0.03068	-0.01002	-0.08017	13.92910
4.630	5.100	-0.34581	0.02009	0.01528	-0.08149	13.92910
4.630	7.214	-0.42699	0.01264	0.00465	-0.08490	13.92910
4.630	9.197	-0.57250	-0.00041	0.04436	-0.08071	13.92910
4.630	11.226	-0.60456	-0.00313	0.07131	-0.08532	13.92910
4.630	13.143	-0.56600	0.00078	0.07952	-0.07763	13.92910
4.630	15.243	-0.58913	-0.01130	0.15606	-0.10071	13.92910
4.630	17.012	-0.60917	-0.03494	0.17246	-0.09654	13.92910
4.630	18.968	-0.58982	-0.02781	0.33291	-0.08677	13.92910
4.630	21.073	-0.48343	-0.07947	0.52614	-0.08165	13.92910
4.630	22.973	-0.51445	-0.09371	0.54783	-0.07892	13.92910
4.630	25.082	-0.44923	-0.10120	0.54879	-0.05377	13.92910
4.630	27.076	-0.83861	-0.11228	0.66559	-0.08567	13.92910
4.630	29.248	-0.73450	-0.09342	0.72472	-0.07677	13.92910
4.630	30.844	-0.72862	-0.09043	0.80527	-0.08459	13.92910
GRADIENT		-0.01545	0.00057	-0.00819	-0.00637	0.00000



LA-14, ROCKWELL ORB 0868 W/MCD. NOSE (B&amp;W )

(RPG001)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALURON = 0.000 CG-LOC = 1.000  
 RUOFUR = 40.000

RUN NO. 619/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	GBLP	GBLS	CYNP	CYNBS	Q (KPA)	BETA
1.600	-1.144	-0.32905	0.00150	0.11190	-0.00031	23.01698	0.00000
1.600	0.552	-0.25614	-0.00193	0.04001	0.00178	23.01698	0.00000
1.600	2.444	-0.34066	-0.00576	0.10285	0.00517	23.01698	0.00000
1.600	4.455	-0.30835	-0.00940	0.03968	0.00825	23.01698	0.00000
1.600	6.458	-0.27305	-0.01366	0.04918	0.01085	23.01698	0.00000
1.600	8.464	-0.23448	-0.01861	0.01408	0.01334	23.01698	0.00000
1.600	10.559	-0.22410	-0.02694	0.02349	0.01497	23.01698	0.00000
1.600	12.451	-0.28366	-0.03134	0.00505	0.01450	23.01698	0.00000
GRADIENT		-0.00144	-0.00195	-0.00812	0.00172	-0.00000	0.00000

RUN NO. 620/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	GBLP	GBLS	CYNP	CYNBS	Q (KPA)	BETA
1.900	-0.680	-0.30432	0.00286	0.13245	-0.00136	22.93458	0.00000
1.900	1.009	-0.28301	-0.00111	0.10290	0.00104	22.93458	0.00000
1.900	2.970	-0.27755	-0.00437	0.12913	0.00479	22.93458	0.00000
1.900	4.954	-0.28047	-0.00787	0.10341	0.00709	22.93458	0.00000
1.900	6.944	-0.27398	-0.01164	0.06841	0.00830	22.93458	0.00000
1.900	8.914	-0.25153	-0.01646	0.03326	0.00832	22.93458	0.00000
1.900	10.943	-0.24643	-0.02259	0.04521	0.00959	22.93458	0.00000
1.900	12.861	-0.24995	-0.02809	0.02029	0.01098	22.93458	0.00000
1.900	14.796	-0.26645	-0.03416	0.03611	0.01082	22.93458	0.00000
1.900	16.783	-0.24958	-0.04090	-0.00010	0.00983	22.93458	0.00000
1.900	18.699	-0.24357	-0.04402	0.02091	-0.00138	22.93458	0.00000
1.900	20.698	-0.22727	-0.05252	0.02040	-0.02385	22.93458	0.00000
GRADIENT		0.00397	-0.00187	-0.00310	0.00154	0.00000	0.00000

LA-14, ROCKWELL CR8 D898 W/MCD. NOSE (BMW )

(RPGR01)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRCON = 0.000 CG-LCC = 1.000  
 RUFLR = 40.000

RUN NO. 618/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CBLP	CLBS	CYNP	CYBS	Q (KPA)	BETA
2.360	-0.089	-0.20772	0.00099	0.11848	0.00034	26.82472	0.00000
2.360	1.493	-0.27870	0.00038	0.11185	0.00270	26.82472	0.00000
2.360	3.455	-0.23766	-0.00519	0.11551	0.00665	26.82472	0.00000
2.360	5.496	-0.28279	-0.00998	0.11717	0.00736	26.82472	0.00000
2.360	7.557	-0.22785	-0.01326	0.09613	0.00951	26.82472	0.00000
2.360	9.492	-0.28162	-0.01792	0.07912	0.01024	26.82472	0.00000
2.360	11.437	-0.21818	-0.02435	0.06146	0.01117	26.82472	0.00000
2.360	13.536	-0.20621	-0.03355	0.04156	0.01372	26.82472	0.00000
2.360	15.442	-0.22145	-0.04089	0.04506	0.01126	26.82472	0.00000
2.360	17.497	-0.21185	-0.04661	0.03072	0.00122	26.82472	0.00000
2.360	19.162	-0.25705	-0.04950	0.02057	-0.00951	26.82472	0.00000
2.360	21.466	-0.20586	-0.05312	-0.05198	-0.04183	26.82472	0.00000
2.360	23.463	-0.20951	-0.05507	-0.12769	-0.06138	26.82472	0.00000
2.360	25.398	-0.24368	-0.04647	-0.01893	-0.08387	26.82472	0.00000
2.360	27.731	-0.31171	-0.04946	-0.18113	-0.06569	26.82472	0.00000
2.360	29.291	-0.19025	-0.06160	-0.33338	-0.07898	26.82472	0.00000
GRADIENT		-0.00728	-0.00179	-0.00075	0.00179	0.00000	0.00000

RUN NO. 946/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CBLP	CLBS	CYNP	CYBS	Q (KPA)	BETA
3.960	0.334	-0.17833	0.00006	0.10082	-0.00367	17.62188	0.00000
3.960	4.717	-0.18277	-0.00608	0.08498	-0.00079	17.62188	0.00000
3.960	8.800	-0.19079	-0.01411	0.15666	0.00255	17.62188	0.00000
3.960	12.614	-0.21926	-0.02676	0.07305	0.00642	17.62188	0.00000
3.960	16.681	-0.24047	-0.03469	0.05792	-0.00361	17.62188	0.00000
3.960	20.676	-0.24976	-0.03403	0.07019	-0.02220	17.62188	0.00000
3.960	24.579	-0.21548	-0.03988	0.10168	-0.04166	17.62188	0.00000
3.960	29.315	-0.23719	-0.05369	-0.17492	-0.03302	17.62188	0.00000
GRADIENT		-0.00101	-0.00140	-0.00361	0.00066	-0.00000	0.00000

RUN NO. 947/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CBLP	CLBS	CYNP	CYBS	Q (KPA)	BETA
4.630	1.043	-0.15444	-0.00039	0.21451	-0.00020	13.92910	0.00000
4.630	5.207	-0.16893	-0.00616	0.11427	0.00115	13.92910	0.00000
4.630	9.144	-0.18263	-0.01431	0.14928	-0.00229	13.92910	0.00000
4.630	13.097	-0.19272	-0.02426	0.07932	0.00269	13.92910	0.00000
4.630	16.966	-0.20423	-0.03007	0.16547	-0.00725	13.92910	0.00000
4.630	20.954	-0.20182	-0.03563	0.12804	-0.02170	13.92910	0.00000
4.630	24.982	-0.23913	-0.03889	0.09679	-0.04023	13.92910	0.00000
GRADIENT		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000



LA-14, ROCKWELL CR8 0898 W/MOD. NCSE (B/M H)

(RPGR02)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALURON = 0.000 CG-LCC = 1.000

RUN NO. 616/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CBUP	CBLS	CYMP	CYNS	BETA
1.600	-1.190	-0.27105	-0.00041	0.01453	0.00249	23.01698
1.600	0.593	-0.28057	0.00200	-0.00696	-0.00349	23.01698
1.600	2.858	-0.19251	0.00257	0.00177	-0.00226	23.01698
1.600	4.554	-0.19449	0.00341	-0.04994	-0.00775	23.01698
1.600	6.641	-0.20418	0.00508	-0.09573	-0.01107	23.01698
1.600	8.849	-0.23210	0.00372	-0.06892	-0.01550	23.01698
1.600	11.009	-0.19234	0.00251	-0.07639	-0.02057	23.01698
1.600	12.517	-0.18109	0.00267	-0.07975	-0.02268	23.01698
GRADIENT		0.01676	0.00061	-0.00741	-0.00165	0.00000

RUN NO. 617/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CBUP	CBLS	CYMP	CYNS	BETA
1.900	-0.715	-0.15429	-0.00104	0.00754	0.00129	22.93458
1.900	0.907	-0.22452	0.00160	0.02296	-0.00214	22.93458
1.900	2.503	-0.19271	0.00307	0.00404	-0.00661	22.93458
1.900	4.735	-0.23900	0.00485	0.02516	-0.01082	22.93458
1.900	7.197	-0.19346	0.00498	-0.03901	-0.01632	22.93458
1.900	8.868	-0.17035	0.00359	-0.02597	-0.02088	22.93458
1.900	10.798	-0.16521	0.00195	-0.06258	-0.02533	22.93458
1.900	13.033	-0.18809	-0.00037	-0.09568	-0.02700	22.93458
1.900	14.862	-0.19190	-0.00440	0.00200	-0.02845	22.93458
1.900	16.835	-0.19222	-0.01065	0.00729	-0.03103	22.93458
1.900	18.778	-0.21695	-0.01619	-0.04324	-0.03473	22.93458
1.900	21.348	-0.21050	-0.02356	-0.07149	-0.04114	22.93458
GRADIENT		-0.01244	0.00105	-0.00585	-0.00226	0.00000

RUN NO. 942/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CBUP	CBLS	CYMP	CYNS	BETA
2.360	0.307	-0.18685	-0.00054	-0.04610	-0.00115	26.82472
2.360	4.377	-0.16140	0.00290	-0.00935	-0.00861	26.82472
2.360	8.460	-0.18554	0.00304	-0.09362	-0.01700	26.82472
2.360	12.492	-0.16242	-0.00480	-0.05528	-0.02274	26.82472
2.360	16.427	-0.18731	-0.01621	-0.13180	-0.02728	26.82472
2.360	18.284	-0.21783	-0.02136	-0.19539	-0.02983	26.82472
2.360	20.429	-0.18955	-0.02725	-0.23236	-0.03168	26.82472
2.360	22.250	-0.16411	-0.03522	-0.28935	-0.03491	26.82472
2.360	24.265	-0.18897	-0.04588	-0.42943	-0.03142	26.82472
2.360	26.529	0.12474	-0.06982	-0.41082	-0.03602	26.82472
2.360	28.403	-0.17345	-0.06783	-0.46577	-0.03781	26.82472
GRADIENT		0.00625	0.00085	0.00803	-0.00183	0.00000

LA-14, ROCKWELL CR8 D888 W/ACD, NOISE (BW M)

(RPGR02)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 ALLCON = 0.000 CG-LCC = 1.000

RUN NO. 943/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CBLP	CLBS	CYNP	CYNBS	Q (KPA)	BETA
2.860	0.434	-0.14247	-0.00039	-0.03534	-0.00140	23.67863	0.00000
2.860	4.490	-0.16927	0.00120	-0.05688	-0.01160	23.67863	0.00000
2.860	8.481	-0.17281	0.00025	-0.06942	-0.01684	23.67863	0.00000
2.860	12.387	-0.19716	-0.00663	-0.19296	-0.02118	23.67863	0.00000
2.860	16.468	-0.20263	-0.01885	-0.00348	-0.02345	23.67863	0.00000
2.860	18.086	-0.16084	-0.02665	-0.01522	-0.02728	23.67863	0.00000
2.860	20.609	-0.22603	-0.02988	-0.08947	-0.02991	23.67863	0.00000
2.860	22.643	-0.23678	-0.03586	-0.21824	-0.03257	23.67863	0.00000
2.860	24.392	-0.23354	-0.04118	-0.26959	-0.03337	23.67863	0.00000
2.860	26.649	-0.18304	-0.05242	-0.29825	-0.03754	23.67863	0.00000
2.860	28.503	-0.21798	-0.05791	-0.35062	-0.03946	23.67863	0.00000
2.860	30.194	-0.19561	-0.06305	-0.40044	-0.04403	23.67863	0.00000
GRADIENT		-0.00562	0.00044	-0.00531	-0.00251	0.00000	0.00000

RUN NO. 944/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CBLP	CLBS	CYNP	CYNBS	Q (KPA)	BETA
3.960	0.443	-0.13056	0.00008	-0.02091	-0.00284	17.62188	0.00000
3.960	4.596	-0.15110	0.00013	-0.05602	-0.00643	17.62188	0.00000
3.960	8.760	-0.14036	-0.00182	-0.04463	-0.01609	17.62188	0.00000
3.960	11.821	-0.18419	-0.00741	-0.11204	-0.01936	17.62188	0.00000
3.960	16.126	-0.21632	-0.01432	-0.17836	-0.02483	17.62188	0.00000
3.960	18.623	-0.21024	-0.02024	-0.13514	-0.02798	17.62188	0.00000
3.960	20.597	-0.21863	-0.02401	-0.03912	-0.02703	17.62188	0.00000
3.960	22.623	-0.22548	-0.02913	-0.02947	-0.03127	17.62188	0.00000
3.960	24.659	-0.22672	-0.03627	-0.08572	-0.03272	17.62188	0.00000
3.960	26.660	-0.21467	-0.04411	-0.11837	-0.03652	17.62188	0.00000
3.960	28.628	-0.22456	-0.04840	-0.18386	-0.03808	17.62188	0.00000
3.960	30.489	-0.26650	-0.04806	-0.24776	-0.04329	17.62188	0.00000
GRADIENT		-0.00495	0.00001	-0.00345	-0.00135	0.00000	0.00000



PARAMETRIC DATA	
BETA =	0.000 ELEVTR = 0.000
ATLRON =	0.000 CG-LOC = 1.000

GRIN NO. 945/0 GRADIENT INTERVAL = -5.00/ 5.00

GRADIENT INTERVAL = -5.00/ 5.00

[illegible]

LA-14, ROCKWELL CRB 0898 W/MCD. NOSE (BAMM)

(RPR003)

## PARAMETRIC DATA

BETA = 0.000 ELEVTR = 0.000  
 ATLRON = 0.000 CG-LCC = 1.000  
 RUOFUR = 40.000

RUN NO. 614/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CELP	CELS	CYMP	CYNBS	Q(KPA)	BETA
1.600	-1.153	-0.28397	0.00199	0.10375	0.00018	23.01698	0.00000
1.600	0.437	-0.30008	-0.00086	0.03904	0.00161	23.01698	0.00000
1.600	2.484	-0.29345	-0.00465	0.10175	0.00556	23.01698	0.00000
1.600	4.460	-0.27411	-0.00700	0.03729	0.00812	23.01698	0.00000
1.600	6.467	-0.25947	-0.00857	0.05936	0.01123	23.01698	0.00000
1.600	8.398	-0.30923	-0.01165	0.01994	0.01299	23.01698	0.00000
1.600	10.449	-0.23442	-0.01842	0.05491	0.01527	23.01698	0.00000
1.600	12.371	-0.27764	-0.02200	0.03193	0.01475	23.01698	0.00000
GRADIENT		0.00842	-0.00162	-0.00839	0.00148	0.00000	0.00000

RUN NO. 615/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CELP	CELS	CYMP	CYNBS	Q(KPA)	BETA
1.900	-0.721	-0.27444	0.00112	0.12158	-0.00277	22.93458	0.00000
1.900	0.928	-0.30290	-0.00017	0.04635	-0.00049	22.93458	0.00000
1.900	2.896	-0.24242	-0.00271	0.12387	0.00215	22.93458	0.00000
1.900	4.869	-0.23376	-0.00608	0.07245	0.00191	22.93458	0.00000
1.900	6.953	-0.26982	-0.00730	0.05450	0.00355	22.93458	0.00000
1.900	8.828	-0.27561	-0.01199	0.02901	0.00535	22.93458	0.00000
1.900	10.923	-0.22527	-0.01834	0.03009	0.00699	22.93458	0.00000
1.900	12.887	-0.22766	-0.02295	0.04668	0.00898	22.93458	0.00000
1.900	14.855	-0.25068	-0.02759	0.04114	0.00641	22.93458	0.00000
1.900	16.829	-0.27250	-0.03207	0.03173	-0.00079	22.93458	0.00000
1.900	18.798	-0.24653	-0.03303	0.02272	-0.01304	22.93458	0.00000
1.900	20.784	-0.20638	-0.03255	0.02540	-0.03373	22.93458	0.00000
GRADIENT		0.01002	-0.00113	-0.00336	0.00088	0.00000	0.00000



## LA-14, ROOMWELL ORB 0898 WIND. NOSE (BAM)

(RPGR03)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 AIRRON = 0.000 CG-LOC = 1.000  
 RUOFUR = 40.000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 940/ 0

MACH	ALPHA	CBLP	CBLS	CYMP	CYNS	Q (KPA)	BETA
2.360	-1.301	-0.23975	0.00039	0.09096	-0.00308	26.82472	0.00000
2.360	0.253	-0.25516	-0.00142	0.09242	0.00010	26.82472	0.00000
2.360	2.451	-0.25628	-0.00295	0.03309	0.00100	26.82472	0.00000
2.360	4.491	-0.25740	-0.00608	0.05158	0.00386	26.82472	0.00000
2.360	6.357	-0.22767	-0.00954	0.06083	0.00532	26.82472	0.00000
2.360	8.421	-0.25675	-0.01266	0.04969	0.00648	26.82472	0.00000
2.360	10.330	-0.24085	-0.01819	0.03479	0.00746	26.82472	0.00000
2.360	12.406	-0.24135	-0.02486	0.00704	0.00704	26.82472	0.00000
2.360	14.414	-0.22184	-0.02988	-0.00444	0.00193	26.82472	0.00000
2.360	16.579	-0.23073	-0.03515	-0.03799	0.00193	26.82472	0.00000
2.360	18.376	-0.24844	-0.03625	-0.07937	-0.00849	26.82472	0.00000
2.360	20.343	-0.24285	-0.03554	-0.11764	-0.01984	26.82472	0.00000
2.360	22.356	-0.19340	-0.03612	-0.25902	-0.03685	26.82472	0.00000
2.360	24.272	-0.24171	-0.03687	-0.31720	-0.04874	26.82472	0.00000
2.360	25.297	-0.26984	-0.03746	-0.31720	-0.06338	26.82472	0.00000
2.360	26.225	0.06235	-0.04915	-0.24194	-0.07160	26.82472	0.00000
2.360	27.278	-0.23238	-0.04129	-0.16149	-0.07711	26.82472	0.00000
2.360	28.267	-0.37500	-0.03689	-0.08306	-0.08306	26.82472	0.00000
2.360	29.287	0.03672	-0.05788	-0.33894	-0.09348	26.82472	0.00000
2.360	29.943	0.10641	-0.06828	-0.21734	-0.09437	26.82472	0.00000
2.360	GRADIENT	-0.00263	-0.00107	-0.00920	0.00109	0.00000	0.00000

GRADIENT INTERVAL = -5.00/ 5.00

RUN NO. 941/ 0

MACH	ALPHA	CBLP	CBLS	CYMP	CYNS	Q (KPA)	BETA
2.860	-1.228	-0.20768	0.00239	0.09335	-0.00166	23.67863	0.00000
2.860	0.271	-0.23153	-0.00221	0.06739	0.00048	23.67863	0.00000
2.860	2.166	-0.21804	-0.00334	0.03329	0.00197	23.67863	0.00000
2.860	4.591	-0.22178	-0.00729	0.05054	0.00323	23.67863	0.00000
2.860	6.471	-0.23404	-0.01093	0.03772	0.00473	23.67863	0.00000
2.860	8.521	-0.23377	-0.01392	0.00732	0.00478	23.67863	0.00000
2.860	10.509	-0.21869	-0.01835	0.03083	0.00586	23.67863	0.00000
2.860	12.440	-0.22031	-0.02838	0.04390	0.00775	23.67863	0.00000
2.860	14.514	-0.23555	-0.03322	0.03199	0.00436	23.67863	0.00000
2.860	16.375	-0.24291	-0.03999	-0.00728	-0.00252	23.67863	0.00000
2.860	18.417	-0.21222	-0.04526	-0.02032	-0.01490	23.67863	0.00000
2.860	20.436	-0.29049	-0.04251	-0.08218	-0.02641	23.67863	0.00000
2.860	22.423	-0.26983	-0.04330	-0.15876	-0.03259	23.67863	0.00000
2.860	24.492	-0.29866	-0.03951	-0.21387	-0.04623	23.67863	0.00000
2.860	26.453	-0.28971	-0.03786	-0.22607	-0.06124	23.67863	0.00000
2.860	28.394	-0.12272	-0.04696	-0.24527	-0.07454	23.67863	0.00000
2.860	30.235	-0.10315	-0.07024	-0.39444	-0.07125	23.67863	0.00000
2.860	GRADIENT	-0.00125	-0.00166	-0.00775	0.00081	0.00000	0.00000

## LA-14, ROCKWELL ORB 0898 W/MOD. NOSE (BMM)

(RPGR03)

PARAMETRIC DATA  
 BETA = 0.000 ELEVTR = 0.000  
 /ILRON = 0.000 CG-LCC = 1.000  
 RUOFLR = 40.000

RUN NO. 939/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CBLP	GBLS	CYNP	CYNBS	Q(KPA)	BETA
3.960	-1.049	-0.18523	0.00211	0.08825	-0.00341	17.62188	0.00000
3.960	0.516	-0.17689	-0.00044	0.09012	-0.00142	17.62188	0.00000
3.960	2.859	-0.18027	-0.00431	0.06860	0.00129	17.62188	0.00000
3.960	4.831	-0.18939	-0.00734	0.07775	0.00291	17.62188	0.00000
3.960	6.884	-0.19763	-0.00989	0.09754	0.00148	17.62188	0.00000
3.960	8.661	-0.20703	-0.01345	0.04066	0.00294	17.62188	0.00000
3.960	10.789	-0.21013	-0.02065	0.01495	0.00709	17.62188	0.00000
3.960	12.680	-0.20972	-0.02613	-0.01054	0.00631	17.62188	0.00000
3.960	14.643	-0.18660	-0.03201	-0.01175	0.00481	17.62188	0.00000
3.960	16.635	-0.20627	-0.03484	-0.05108	-0.00412	17.62188	0.00000
3.960	18.689	-0.21570	-0.03602	-0.04732	-0.01325	17.62188	0.00000
3.960	20.815	-0.24103	-0.03711	-0.10807	-0.01892	17.62188	0.00000
3.960	22.909	-0.24322	-0.04005	-0.16676	-0.02672	17.62188	0.00000
3.960	24.592	-0.27512	-0.04374	-0.22927	-0.03637	17.62188	0.00000
3.960	25.436	-0.21469	-0.04704	-0.29222	-0.04248	17.62188	0.00000
3.960	26.635	-0.09039	-0.05339	-0.11737	-0.05570	17.62188	0.00000
3.960	28.526	-0.19783	-0.05475	-0.31986	-0.04697	17.62188	0.00000
3.960	30.298	-0.28803	-0.04286	-0.51487	-0.05526	17.62188	0.00000
GRADIENT		-0.00121	-0.00161	-0.02676	0.00108	0.00000	0.00000

RUN NO. 939/ 0 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CBLP	GBLS	CYNP	CYNBS	Q(KPA)	BETA
4.630	-0.585	-0.16051	0.00177	0.09724	-0.00159	13.92910	0.00000
4.630	0.934	-0.15617	-0.00034	0.08571	-0.00003	13.92910	0.00000
4.630	2.850	-0.16310	-0.00357	0.06132	0.00198	13.92910	0.00000
4.630	5.328	-0.17747	-0.00755	0.06404	0.00248	13.92910	0.00000
4.630	7.361	-0.18924	-0.01092	-0.09922	-0.00009	13.92910	0.00000
4.630	9.197	-0.18997	-0.01457	0.11356	-0.02208	13.92910	0.00000
4.630	11.199	-0.19894	-0.01878	-0.01030	0.00078	13.92910	0.00000
4.630	13.222	-0.19530	-0.02439	-0.02731	0.00419	13.92910	0.00000
4.630	15.164	-0.20116	-0.02934	-0.09084	0.00347	13.92910	0.00000
4.630	17.005	-0.20540	-0.03286	-0.11210	-0.00385	13.92910	0.00000
4.630	19.126	-0.21223	-0.03401	-0.13502	-0.00987	13.92910	0.00000
4.630	21.073	-0.20583	-0.03718	-0.06407	-0.01660	13.92910	0.00000
4.630	22.953	-0.21901	-0.03959	-0.05123	-0.02044	13.92910	0.00000
4.630	24.955	-0.11894	-0.05226	-0.04478	-0.03247	13.92910	0.00000
4.630	27.023	-0.18637	-0.04805	-0.05090	-0.03957	13.92910	0.00000
4.630	28.868	-0.22290	-0.04731	-0.14659	-0.03805	13.92910	0.00000
4.630	30.885	-0.24354	-0.05019	-0.48324	-0.03227	13.92910	0.00000
GRADIENT		-0.00088	-0.00156	-0.01055	0.00104	0.00000	0.00000